

# Safeguarding A Living Heritage

**A Model for the Architectural Conservation of  
an Historic Islamic District of Kudus,  
Indonesia**

by

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A thesis submitted in fulfilment of the requirements for the degree of  
Master of Architecture (MArch)  
at the University of Tasmania  
September 1994

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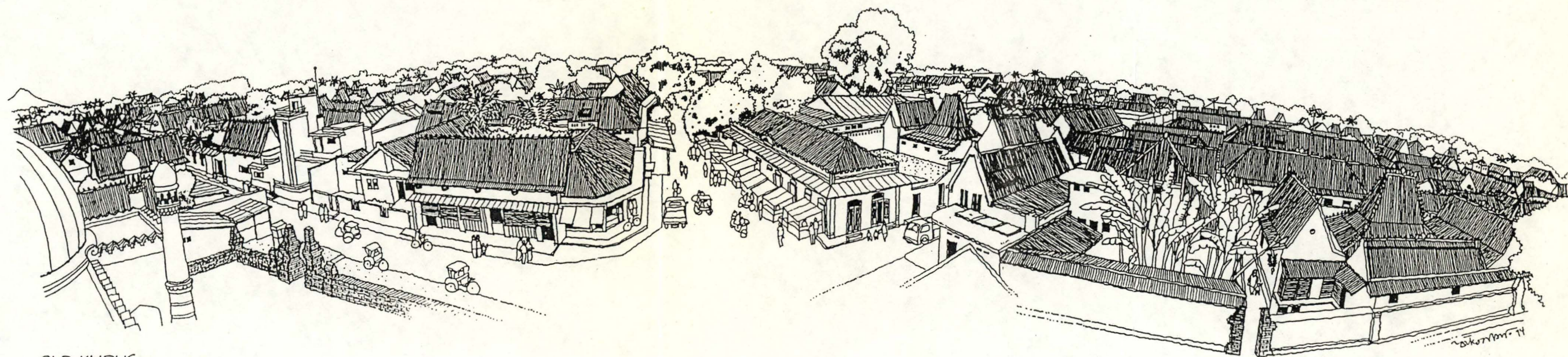
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OLD KUDUS  
SEEN FROM THE MINARET, LOOKING NORTH, EAST AND SOUTH



# **Safeguarding A Living Heritage : A Model for the Architectural Conservation of an Historic Islamic District of Kudus, Indonesia**

Ria Rosalia Wikantari

## **ABSTRACT**

Conserving places of architectural heritage value is of prime importance for Indonesia. Multi-ethnic developing nations must retain local character while creating a national, multi-ethnic identity. During periods of rapid socio-economic change, one must both anticipate a dynamic development process and protect architectural heritage places; thus, attempts to safeguard culturally-significant living structures are crucial. The architectural conservation movement in Indonesia is still largely in its infancy; a strategy for its development is greatly needed. This strategy should incorporate an understanding of the scope of heritage conservation, development of an appropriate model, and the establishment of mechanisms for implementation. Lessons learned from the experience of other countries may constitute an invaluable resource. The choice of an intact yet decaying historic urban structure as a case study can provide a useful example for practical application.

This thesis attempts to develop a model for safeguarding Indonesia's architectural heritage, with the historic Islamic district of Kudus serving as a case study. A four-step procedure is proposed as the model. It consists of : (1) examination of historic context; (2) assessment of cultural significance; (3) development of conservation policy; and (4) directions for policy implementation. This model is intended to provide future policy directions for those involved in the urban development of Indonesia and Kudus, including professionals, policy-makers and the inhabitants. In many respects an academic exercise, this research establishes the need for further studies which could only take place with greater availability of resources.

A general literature review to establish the theoretical basis of the work was carried out in Australian libraries and through discussions with relevant experts. Field research allowed for the examination and recording of architectural, historical, socioeconomic, and administrative data of the historic Islamic district of Kudus. Research in Indonesia included archival research, literature review, site and building measurements, and photographic documentation, as well as interviews with inhabitants, relevant professional practitioners, and local officials.

Examination of field data led to the development of an appropriate analytical method. Application of this method established historic themes, determined statements of cultural significance for heritage areas and structures, developed a framework for both general and critical inventories, and established priorities for immediate protection. A conservation policy was subsequently formulated through appropriate application of the theoretical base to the Kudus case and review of relevant international and Indonesian experience. This policy approach considers the district as a whole dynamic living

heritage, integrates conservation issues and practice with an overall planning process, and generates community participation in a more conservation-oriented planning and design process. Primary, secondary and supporting programmes for policy implementation were identified.

This model provides a structure in which Kudus residents, urban design professionals and government officials can develop a conservation policy for Kudus. It does not pre-empt strategic decision-making. Rather, it can serve as a valuable tool for conservation analysis and planning applicable to other places facing similar problems. In addition, this study contains important historic and architectural information to add to current knowledge of Kudus and to serve as a source of comparative study for other historic Islamic districts of Indonesia, particularly in Java. Finally, it is hoped that this study will contribute to the development of heritage conservation research in Indonesia.

# Preface

I was trained as an architect in the Department of Architecture, Faculty of Engineering, Gadjah Mada University in Yogyakarta which emphasises a balance between aesthetic, technological, and social aspects of architecture of both contemporary and traditional built environments. An awareness of the precious contribution made by Indonesian traditional architecture in creating local character and multi-ethnic identity has since been in my mind.

When I became an architect and had an opportunity to be a teaching staff in the University of Indonesia in Jakarta, my curiosity about traditional built environments developed. My early concern, like that of most Indonesian architects', was focussed on attempts to learn lessons from traditional architecture as a basis for designing contemporary built environments which exhibit cultural identity. I later realised that traditional built environments, most of which have been facing threats resulting from socio-economic change, are not only objects for the searching of precedents. These environments are themselves living heritage consisting of place and people, subjects deserving appropriate intervention if they are to remain physically and socio-economically viable.

My post graduate studying in Australia provided an opportunity to be familiar with the internationally recognised Burra Charter, as well as other Western and non-Western theories of and approaches to heritage conservation. My being in Australia improved my academic basis, while providing opportunity to watch efforts for conserving culturally significant places. This underlay my attempt to develop a model for conserving Indonesian architectural heritage. I am however aware that further considerations are required when applying the experience of other countries to Indonesian cases.

The model developed in my thesis needs testing: I chose Old Kudus, particularly its intact yet declining historic Islamic district, as a case study. My first encounter with Kudus was in 1983, in a field trip which was part of my undergraduate course. Observing and experiencing Kudus architecture made me keep thinking whether such a vernacular urban environment can physically survive while its inhabitants facing socio-economic pressures and undergoing change of lifestyle. Attempts have to be carried out soon to safeguard Kudus and other culturally significant but economically declining vernacular urban environments.



# Acknowledgment

This study would not be carried out without the scholarship of the Australian International Development Assistance Bureau, the permission for studying abroad from my institution the Department of Architecture, University of Indonesia, and the assistance of many individuals and institutions, to whom I would like to express my sincere gratitude. I cannot list all the names in this limited space; I apologise for those whose names are not mentioned and who have actually been involved in my study.

I studied and wrote the thesis in the Department of Architecture, Faculty of Design, University of Tasmania, had an opportunity to consult with academic staff and practitioners in heritage conservation in Australia and overseas, and undertook the field research in Kudus and other cities in Java.

My great gratitude firstly goes to my research supervisor Mary Latham, for her constructive suggestions, valuable assistance and generous spared time provided during my learning process. I would also like to thank Dr. Krzysztof Bieda and Professor John Webster for their invaluable advice and supporting materials provided since the early stage of my study. My gratitude also goes to Mr. Andras Kelly, the Head of the Department and a reader of my manuscript, both for his support and his review of the draft. Similar gratitude should be addressed to other readers: Professor Campbell Macknight, the Head of the Department of Humanities, for his review on the history sections, and Rory Spence, for the final review and proofreading; both with valuable commentary and suggestions. I owe many favours to my English tutor Helen Tilbury for her assistance in my early drafts; also to my friends Kay Clark for her review on the English of some chapters and Marijke Smit for her translation of the Dutch texts. To Linda Purchase and Elizabeth Painter, administrative staff, Ian Blakey, technical staff, and other academic staff of the Department, as well as Carol Shams Abadi, the Overseas Students Adviser of the University, I offer thanks for their support during my study.

In Australia I was also supported by many people. I would like to acknowledge Professor Miles Lewis of the University of Melbourne, for his information and valuable discussion on conservation analysis; Mr. David Young of the University of Canberra's National Centre for Cultural Heritage Science Studies, for his discussion on

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I received helpful information and relevant materials through correspondence with overseas experts. I would like to express my great thankfulness to Mr. Flemming Aalund, an architect-conservationist in Denmark, for his valuable information and materials concerning architectural conservation in an Asian-African context, also to Professor Renata Holod in the United States, and Mrs. Pauline Hengeveld-Brand, Mr. C. Passchier, Mr. Ronald Gill, and Mr. Ben F. van Leerdam in the Netherlands, for their helpful information and materials on Kudus. My thank should also be addressed to Mr Alfeo Tonellotto, Programme Specialist of the Unesco's World Heritage Centre in Paris, Mrs. Reiko Noguchi, Associate Expert in Culture of the Unesco's Principal Regional Office of Asia and the Pacific in Bangkok, Mr. Hasan-Uddin Khan of the Aga Khan Trust for Culture, and Mr. Casper Jan Camp, Resident Representative of the United Nations Development Programme in Jakarta, for their useful information on heritage conservation experts and publications.

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# **INTRODUCTION**

## **Background of the Study**

Places of architectural heritage value represent the history, culture, and civilisation of a community. They visually enrich the environment, maintain a sense of place, and provide an invaluable architectural and scientific resource. They also provide a trace of history and memory, foster a sense of community pride, and encourage the development of cultural tourism. They provide a basis for an appropriate architecture of the future. The conservation of such places may, therefore, inspire development, while safeguarding the irreplaceable architectural heritage

Architectural conservation of places of heritage value is of prime importance for multi-ethnic and developing nations such as Indonesia. Conservation contributes to historical continuity and strengthens local traditions while enhancing a sense of national identity. On the one hand, inevitable changes in the way of life, economic system and technology have demanded changes in contemporary architecture. On the other, the lack of well-planned and managed development has resulted in the loss of many significant sites. A general fascination with current architectural styles and public disregard for the cultural heritage value of places, moreover, have replaced culturally-significant structures with incompatible contemporary ones. The unfortunate end result is the erosion of local identity and the creation of a monotonous environment. In order to accommodate the dynamic development process while protecting heritage resources, Indonesians must make a concerted effort to safeguard living places of architectural heritage value.

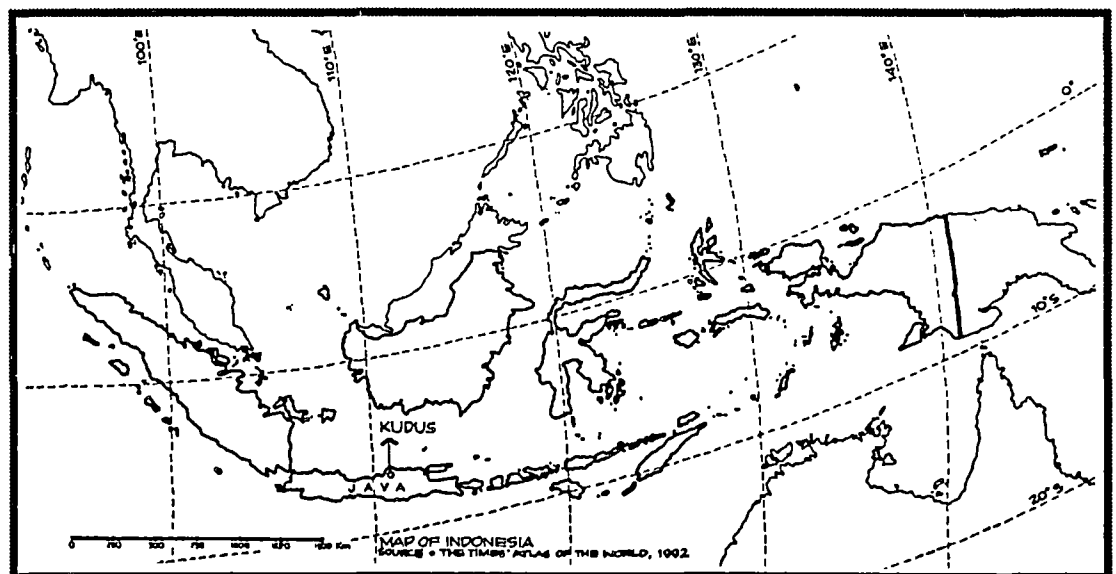
Indonesia has a large number of architectural heritage places worthy of conservation. Lack of appropriate maintenance, however, has resulted in their degradation. Some have suffered the decaying effects of natural weathering of the material or of particular construction technologies. Many have been demolished to give way to contemporary development. Those which remain have been endangered by unsuitable alter-

ations and unsympathetic development. They urgently require programmes for their protection.

As the architectural conservation movement in Indonesia is largely still in its infancy, precedent needs to be sought based on the experience of other countries, and a clear proposal for conservation must be formulated and tested. Such a proposal should be based on specific conditions existing in Indonesia and must be tested by application to an Indonesian case.

## The Setting

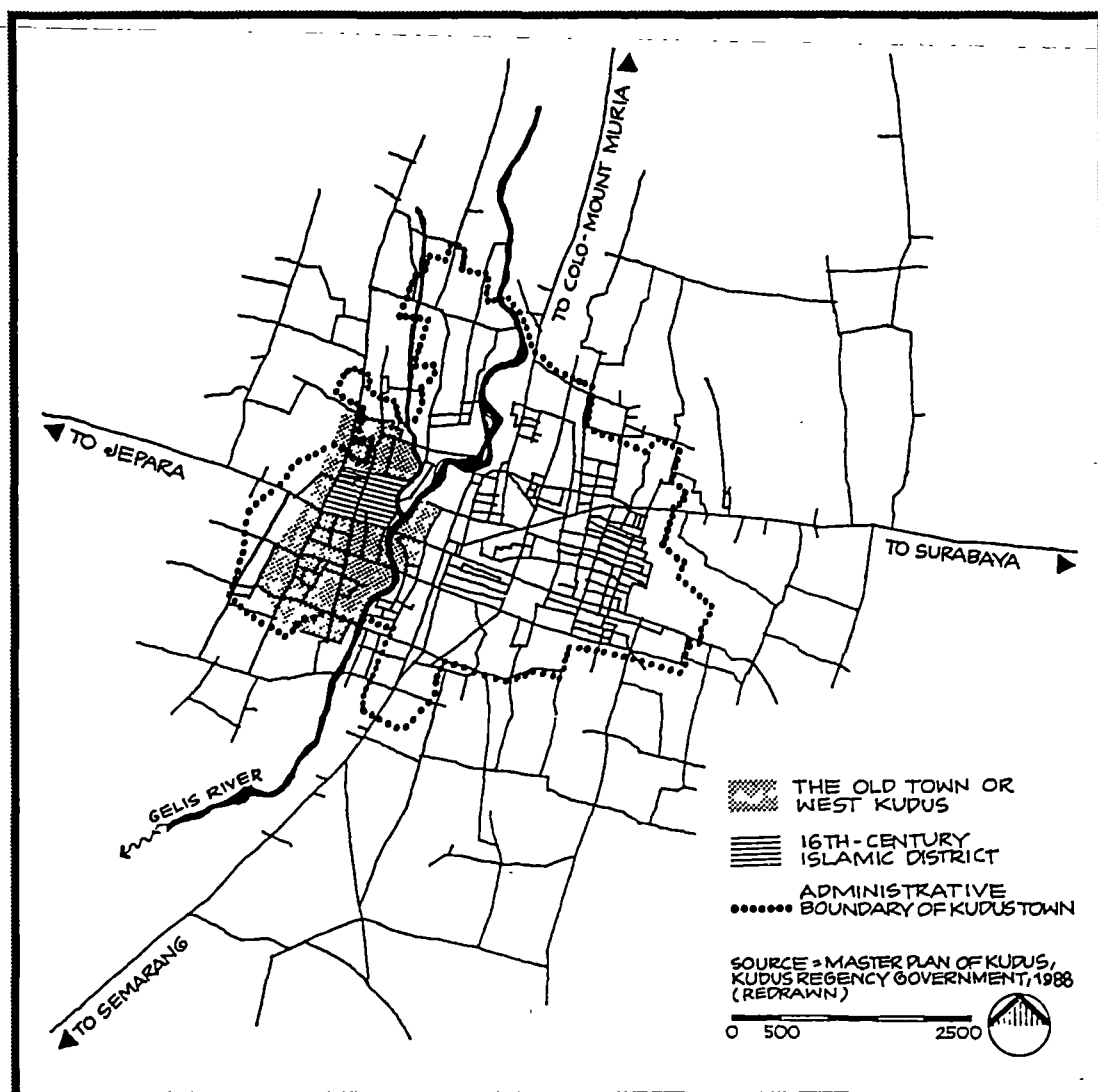
A few Indonesian historic towns still have intact significant areas and structures, but many have lost these parts due to a process of undesirable architectural change. Many Indonesian historic towns have lost their architectural character; those remaining intact face the extinction of their architectural heritage.



**Fig. 0.1** Map of Indonesia showing the location of Kudus town.

The old town of Kudus is one of the most architecturally intact historic towns experiencing this undesirable change. Its core, which is an historic Islamic district, is a traditional urban settlement which is still socially and physically cohesive. Social and economic pressure, however, has led to the loss of significant elements and forms in its urban environment. Unchecked, this pressure for incompatible development could irreparably damage the entire historic urban area. Kudus can thus be considered as a most appropriate example of an historic Indonesian town of architectural heritage value which requires immediate protection.





**Fig. 0.2** Map of Kudus showing the old town and its historic Islamic district.

The core district of the old town of Kudus, which is an historic Islamic area, has been chosen as the setting of this study for a number of reasons.

Kudus is a uniquely significant city in urgent need of further conservation study, planning, and documentation. The district was the seat of Sunan Kudus, the founder of the town who was also one of the Islamic saints in Java. His cultural history has been recorded, so that Kudus has a strong spiritual and symbolic significance for Indonesia. As an area which demonstrates a particular typology of traditional urban patterns the district represents a rare example of Indonesian vernacular urban structure. Its documentation would be of great research value. Most of the urban spaces, streetscapes, and residential structures of the district have changed considerably

since the time an observation was conducted by Jasper in 1922<sup>1</sup>. Immediate recording and documentation are needed. Since there have been little architectural heritage research or concrete conservation programmes carried out since Shirazi's preliminary study in the mid 1970's<sup>2</sup>, the significance of Kudus needs further emphasis.

Kudus provides a number of characteristics which make it an appropriate case for the purposes of this study. The fabric of the district shows both old and contemporary elements, reflecting a dynamic development over time. It provides useful evidence for the examination of historic context. Since the district contains intact urban and residential forms which clearly show historic patterns of a vernacular town and vernacular timber house forms, this culturally-significant architecture can be more thoroughly investigated than it has been to date. The majority of the inhabitants of the district are devout Muslims native to Kudus, allowing a relationship between architecture and cultural tradition to be considered. Finally, the Islamic district is compact in character and the area is relatively small in size, providing a suitable setting for field research.

### **Purpose of the Study**

The primary aim of this study is to develop a model for the conservation of Indonesian places of architectural heritage value. The model is intended to provide directions for decision-making regarding the future of Indonesia's urban heritage. This model would serve as a basis for the preparation of a conservation plan and the undertaking of further conservation projects. The use of the historic Islamic district of Kudus as a case study demonstrates the model.

In order to create an appropriate model, this study reviews critical theoretical and pragmatic issues of Indonesian and non-Indonesian conservation policy, and examines the historic context and cultural significance of Kudus and its historic Islamic district. A critical framework is proposed in which a strategic model for Indonesian conservation planning may be developed. Since Indonesia contains a wide variety of architectural and settlement forms, this strategy provides policies, programmes and techniques specific to the needs of Kudus yet adaptable to other Indonesian towns, particularly in Java.

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<sup>1</sup> J. E. Jasper, 'Het stadje Koedoes en zijn oude kunst', in *Nederlandsch-Indie Oud & Nieuw (NION) 1922-1923*, Den Haag, May 1922, pp. 1-30.

<sup>2</sup> B. A. Shirazi, *General Survey of Conservation Status of Three Javanese Islamic Cities : Cirebon, Demak, Kudus*, a mimeographed report, Unesco, n.p., 1976., pp. 53-79.

## **Objectives of the Study**

In order to effectively model conservation strategies for Indonesian towns, the following objectives were established:

- (1) the establishment of a theoretical basis for the work;
- (2) the verbal and visual description of the chosen case, Kudus, and its historic Islamic district, including extensive architectural documentation; and
- (3) the development of a clear model for safeguarding the architectural heritage of this place, using the Kudus case to demonstrate issues and techniques.

The model includes both analysis and policy development. The analysis comprises:

- (1) the examination of the historic context of Kudus, including the identification of its historical themes, and areas and sites representative of these themes;
- (2) the identification of heritage resources as a basis for preparing a general inventory;
- (3) the assessment and grading of the cultural significance of the areas and sites; and
- (4) the identification of the most critical areas and sites.

Policy proposals demonstrate a planning-oriented approach to Indonesian heritage conservation, comprising :

- (1) a statement of conservation planning objectives; and
- (2) the identification of programmes as the means to achieve the planning objectives.

This study should serve as an effective model for widespread Indonesian application. A diagrammatic framework presents the essential features of the model : the examination of historic context and cultural significance of places, and the establishment of planning-oriented conservation policies and programmes. In addition, the theoretical review and the examination of Kudus town and its Islamic district presented in this study may provide a source of comparative study for the investigation of other historic towns of Indonesia which face similar problems and are struggling to preserve their architectural heritage. The topic of this study, moreover, may foster wider concerns for the conservation of living cultural heritage and vernacular urban forms.

The visual documentation is intended to serve as a body of data for further investigation and provide documentary evidence in case the actual physical process of conservation does not occur. A preliminary list of existing timber houses in the study area supplements this documentation. Documentation includes :

- (1) drawings of urban plans of the most significant area;

- (2) drawings of significant street facades considered to be most threatened; and
- (3) measured drawings of a number of buildings considered representative of those most threatened.

### **Limitations of the Research**

The limited documentation on Kudus and the lack of field resources to carry out a thorough primary recording of the study area have impacted on this study. The analysis in this study relies almost entirely on on-site observation and recording of physical evidence. The absence of aerial photographs and sufficient maps of the area, moreover, hindered investigations. Reliable architectural and historical documentation was notably lacking. Due to the lack of existing documentation, measured drawings of buildings and sites were entirely based on on-site measurements. Detailed urban plans of the study area were assembled through plotting field measurements and ground-photographs on topographical and cadastral maps.

The academic context in which the research was undertaken limited human resources in the field. Interpretation of available field and archival data as well as comparison with other similar settings has been developed in an attempt to compensate for the shortcomings of primary and secondary resources.

Indonesia has a diverse history and contains a variety of settlement forms, including dispersed and inaccessible villages. The model developed in this study is intended for application in Javanese towns. While the study makes frequent references to Indonesia as a national and cultural entity, the model may be less suitable for some non-urban sites outside of Java.

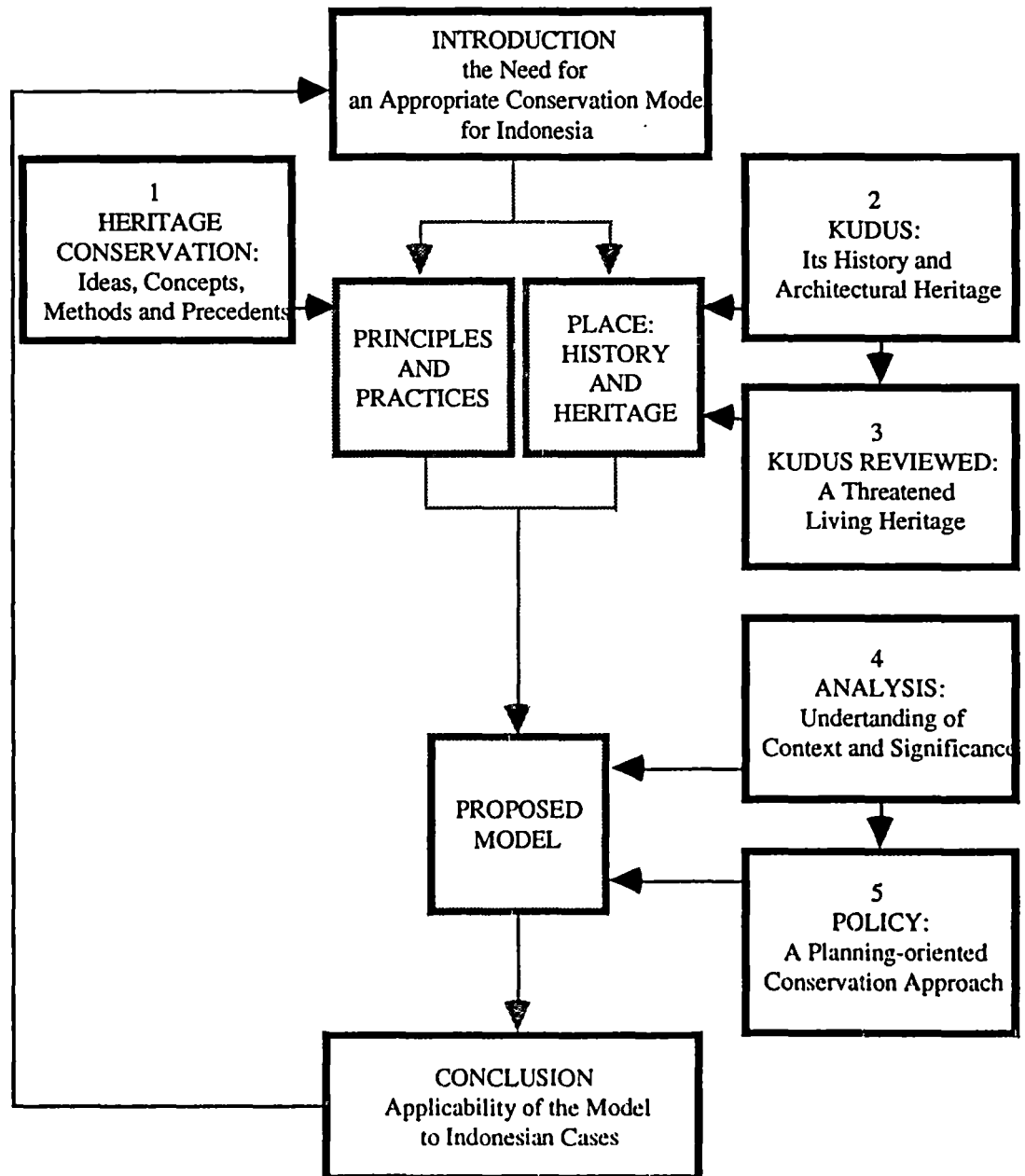
### **Research Methodology**

Background research to develop a theoretical basis was carried out through a general literature review and discussion with experts in a variety of relevant disciplines. Cases from a variety of international settings were examined and compared. This resulted in the identification of ideas and concepts of cultural heritage conservation, and methods of their application to urban planning process and heritage conservation practice.

Field-research on the historic Islamic district of Kudus and other Indonesian towns was carried out from December 1992 to March 1993, through archival investigation, literature review, site and building measurement, and photographic recording.

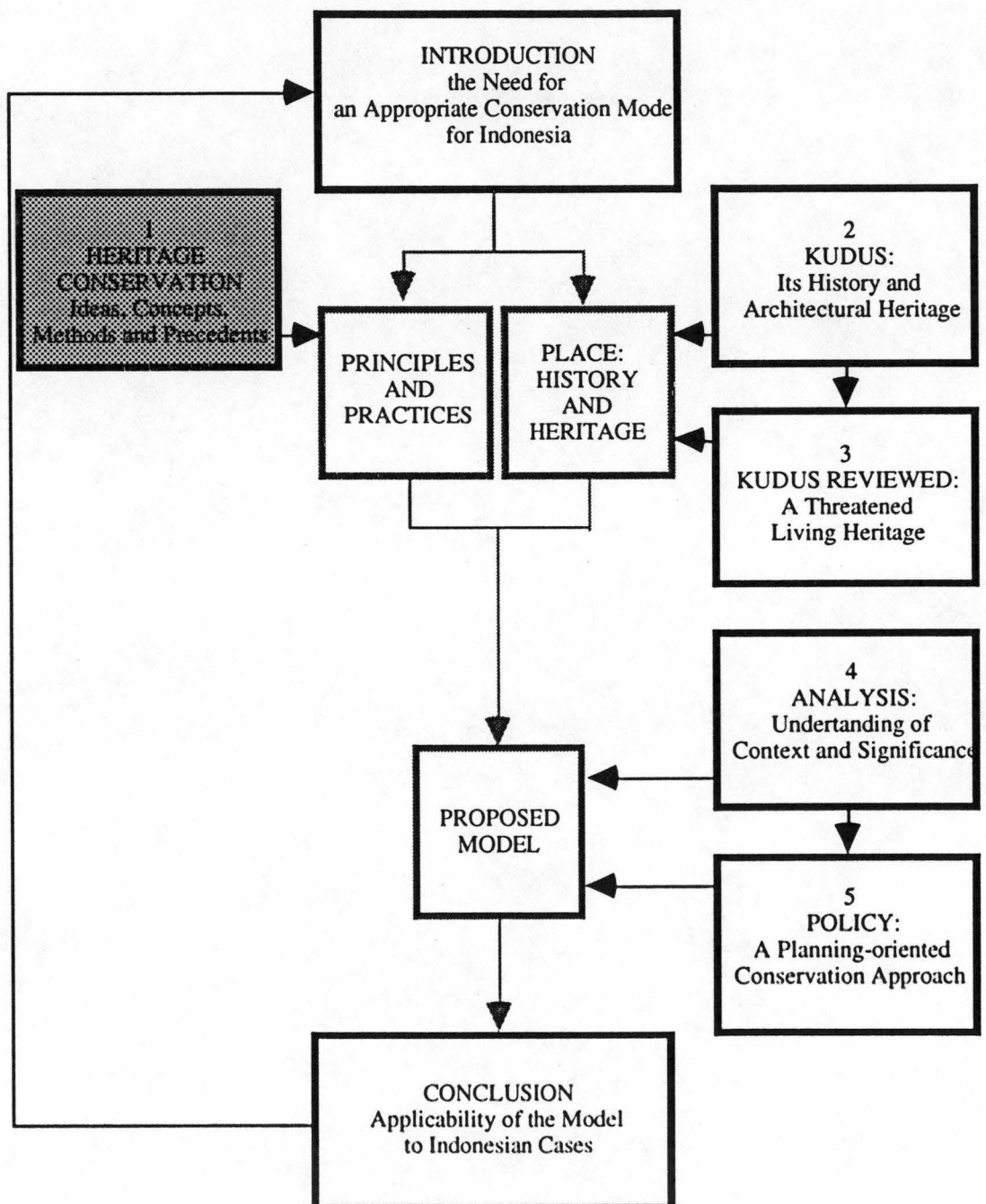
Interviews with representatives of the inhabitants, local government officials, and design professionals were also undertaken. Participant-observation, which was carried out through a six-week stay in the district, was an essential approach in this field-research. Such an approach contributed to a more thorough investigation of the architecture, a deeper understanding of the life of the inhabitants, and a more careful examination of the interplay between the place and the people.

A diagram of the thesis structure is shown in Figure 0.3.



**Fig. 0.3** Diagram of thesis structure.

**Safeguarding a Living Heritage:**  
**A Model for the Architectural Conservation of an Historic Islamic District of Kudus,**  
**Indonesia**





# 1

## HERITAGE CONSERVATION : Theoretical Review

### 1.1 Ideas

#### 1.1.1 Conservation and Historical Continuity

'Relics, histories, and memories suffuse human experience. Each particular trace of the past ultimately perishes, but collectively they are immortal. Whether it is celebrated or rejected, attended or ignored, the past is omnipresent.'

David Lowenthal, *The Past is a Foreign Country*, 1985.<sup>8</sup>

'The value of a built environment is a conglomerate of its actual physical existence and the historical memories and myths people attach to it ...'

Oleg Grabar, *Why History*, 1993.<sup>9</sup>

The human need for continuity of past, present, and future drives architectural conservation. Architecture draws power from its historic associations. Conversely, history and memory, because they are abstract in character, are strengthened by concrete physical remains.<sup>10</sup> The architectural heritage reflects the memory, history and culture of the people who built, used or inhabited them. Although depleted by time, use and weather, these buildings maintain essential links between the past and the present. However, despite being the physical remains of the past, these structures have limitations : they are mute. Interpretation is required to give cultural significance to the environment. Architectural conservation -- a mixture of interpretation, intervention, and policy -- of such historic buildings and sites is essential in urban development.

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<sup>8</sup> David Lowenthal, *The Past is a Foreign Country*, Cambridge University Press, Cambridge, Mass., 1985, p. xv.

<sup>9</sup> Oleg Grabar, 'Why History : the Meanings and Uses of Tradition', in *Traditional Dwellings and Settlements Review*, v.IV, no.II, Spring 1993, p. 19.

<sup>10</sup> Lowenthal, op.cit., pp. xxii-xxiii.

Current interest in environmental sustainability has led to renewed efforts to preserve and adapt architecturally significant heritage structures to contemporary uses. Old urban structures of European, Mediterranean, and Middle-Eastern towns such as York in Britain<sup>11</sup>, Celle in Germany<sup>12</sup>, Zamosc in Poland<sup>13</sup>, Tore di Nona in Italy<sup>14</sup>, Plaka in Greece<sup>15</sup>, Sana'a in Yemen<sup>16</sup>, Old Cairo in Egypt<sup>17</sup>, are just a few examples. The dense urban structures of these towns survive and serve as sound residential areas, viable business centres, or combinations of both. Humble and vulnerable traditional dwellings such as the timber-and-thatch houses in villages of Papua New Guinea<sup>18</sup>, the mud houses of Mali<sup>19</sup>, the half-timbered mud houses of Ethiopia<sup>20</sup>, Tanzania, Kenya and Nigeria<sup>21</sup>, as well as Zanzibar<sup>22</sup>, are examples of traditional vernacular houses which have remained sound dwellings continuously occupied by the descendants of the original inhabitants. The temple-like houses of the historic residential quarters of Kudus, Indonesia, are likewise still occupied. These vernacular dwellings require conservation in order to maintain their physical survival and socio-economic viability.

### 1.1.2 Conservation and Sustainability

'Waste and loss are the dark side of change...Are there ways of wasting well?'  
Kevin Lynch, 1984, in *Wasting Away*, 1990.<sup>23</sup>

<sup>11</sup> See : Sir Lionel Brett Esher, *York : A Study in Conservation*, Her Majesty's Stationary Office, London, 1968.

<sup>12</sup> Niels Gutschow, 'Case Study : Celle', in *Protection and Animation of Monuments, Sites and Historic Towns in Europe*, ed. Hans-Dieter Dyrhoff, German Commission for UNESCO, Bonn, 1980, pp. 155-162.

<sup>13</sup> Piatek, A.J., Mach, J., Piatek, T., and Szozda, J., 'Case Study : Zamosc', in *ibid*, pp. 341-350.

<sup>14</sup> B. Rossi-Doria and I. Brock, 'Case Study : Rome, Tor di Nona', in *ibid.*, pp. 249-258.

<sup>15</sup> L. Carras, 'Case Study : Athens - Plaka', in *ibid.*, pp.207-213; Dionysis A. Zyvas, 'The Saving of Plaka - Part I', *Monumentum*, v. 26, no. 1, March 1983, pp. 3-21; Jordan Dimacopoulos, 'The Saving of Plaka - Part II', *Monumentum*, v. 26, no. 2, June 1983, pp. 143-162.

<sup>16</sup> See : Ronald Lewcock, *The Old Walled City of Sana'a*, Unesco, Paris, 1986; Ronald Lewcock, 'The Old City of Sana'a' in *Development and Urban Metamorphosis volume I : Yemen at the Crossroads*, Proceedings of Seminar Eight held in Sana'a, Yemen in 1983, The Aga Khan Award for Architecture, 1983, pp. 71-80.

<sup>17</sup> Ronald Lewcock, 'Conservation in Islamic Cairo', in *The Expanding Metropolis Coping with the Urban Growth of Cairo*, Proceedings of Seminar Nine held in Cairo, Egypt in 1984, The Aga Khan Award for Architecture, 1985, pp. 49-53.

<sup>18</sup> Mary Latham and Ramesh Manandar, *Considerations for Developing an Architectural Conservation Policy in Papua New Guinea*, Department of Architecture and Building, New Guinea University of Technology, 1990.

<sup>19</sup> Jean-Jacques Guibbert, 'The Ecology and Ideology of Cities on the Edge of the Desert', in *Reading the Contemporary African City*, Proceedings of Seminar Seven held in Dakar-Senegal in 1982, The Aga Khan Awards, 1983, pp. 9-26.

<sup>20</sup> Flemming Aalund, 'Preserving Ethiopia's Cultural Heritage', *Icomos Information*, no. 2, April/June 1986, pp. 3-14.

<sup>21</sup> Amini Mturi, 'The Conservation of African Architectural Heritage, Part I', *Monumentum*, vol. 27, no. 3, September 1984, pp. 181-196; *id.*, 'The Conservation of African Architectural Heritage, Part II', *Monumntum*, v. 27, no. 4, December 1984, pp. 175-184.

<sup>22</sup> Flemming Aalund, 'Zanzibar Old Stone Town', *Monumentum*, v. 26, no. 2., June 1983, pp. 143-162.

<sup>23</sup> Kevin Lynch, with contributions by Michael Southworth, ed., *Wasting Away*, Sierra Club, San Fransisco, 1990, pp. 1-2.

'Decline, decay, and wasting are a necessary part of life; we must learn to value them and to do them well.'

Michael Southworth, after Lynch, *Wasting Away*, 1990.<sup>24</sup>

Compact residential patterns, low-rise buildings, narrow streets, and irregular lanes are typical of the historic town centres of the past. These formations conflict with the continuous growth of traffic which demands larger parking spaces and wider streets. Historic dwellings may have typical spatial organisations which are considered to be no longer suitable for today's lifestyle. Contemporary change, such as commercial and industrial development, real estate speculation, transportation expansion, growth and shifts in population, and organised tourist development, moreover, create additional pressure. These pressures often result in a shift to areas out of the historic quarters and town centres. This migration of the population, usually the youth, occurs as a response to these pressing conditions. Such actions give rise to two equally dangerous threats. There is either the threat of dereliction or the threat of demolition in order to maintain the viability of the historic quarters and town centres.

During times of economic recession, it becomes imperative that limited resources are used efficiently. A vision of a sustainable environment and an adequate awareness of the finite nature of resources is required to prevent, or manage, waste of both places and materials. Regional strategies for reusing and recycling wasted places are needed. Methods must be sought to retain urban buildings and architectural elements of heritage value, and to manage these structures so that they can accommodate appropriate change.

### 1.1.3 Conservation and Genius Loci

'A place is a space which has a distinct character ... a genius loci ... a spirit of place ... Architecture means to visualise the *genius loci* and the task of the architect is to create meaningful places ...'

Christian Norberg-Schulz, *Genius Loci*, 1980.<sup>25</sup>

'Many cities, perhaps all, have a poetic aspect, a quality that makes them unique, even if the statistics so often make them ordinary.'

His Highness the Aga Khan, *Reading the Contemporary African City*, 1983.<sup>26</sup>

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<sup>24</sup> Michael Southworth, in his introduction as editor in *ibid.*, p. vii.

<sup>25</sup> Christian Norberg-Schulz, *Genius Loci : Towards a Phenomenology of Architecture*, Academy Editions, London, 1980, p. 5. Norberg-Schulz describes architecture as a concretisation of existential space that incorporates structure, meaning, orientation, and identification.

<sup>26</sup> His Highness the Aga Khan, 'Opening Remarks', in *Reading the Contemporary African City*, *op.cit.*, p. xv.

The perceived need to maintain *genius loci* or 'spirit of place' is an essential basis for architectural conservation.<sup>27</sup> Each place expresses its own individual uniqueness and local attributes, contributing to a sense of place, and a sense of belonging and well-being among the inhabitants. These attributes are aspects of natural environment, cultural expression and sensory experience. *Genius loci* therefore exists because of a complicated interaction between major components of identity which include physical features and appearance, perceivable activities and functions, and meanings or symbols.<sup>28</sup>

Contemporary planning and design decisions often alter the original image, character, and even meaning of a place. This can lead to the loss of an essential *genius loci*. This gradual loss often goes unnoticed by local inhabitants until a permanent undesirable change to the image, character, and meaning of the place occurs. Since continuous cultural change is inevitable, an identification of the *genius loci* of a place must precede changes. The rate and character of the changes, in turn, must be designed to maintain the sense of place.

#### 1.1.4 Conservation and Cultural Identity

"Tradition and development are often incompatible, development can proceed only when tradition is "forgotten". Nevertheless, it is only through traditions, real or fictitious relationships to half-forgotten and largely misunderstood pasts, that people recognise themselves.'  
Oleg Grabar, *Why History*, 1993.<sup>29</sup>

The development of a global culture has introduced standardised values, mass-produced goods, and alien cultural influences into multi-ethnic communities and non-Western nations. This is the case in Indonesia. Rapid international socio-economic change has supported physical and material improvement and technological progress which may be positive and appropriate for humanity. Yet it has also threatened the existence of local cultural traditions.

Socio-economic development and cultural heritage protection have often been seen as contradictory issues. The protection of cultural heritage traditions and structures should be seen as necessary for enhanced development. However, with high priori-

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<sup>27</sup> *Genius* denotes distinctive character or creative nature. *Genius loci* generally means the special atmosphere of a particular place. See : G.A. Wilkes, ed., *The Collins English Dictionary, Australian Edn.*, 2nd.edn., Sydney, 1989, p. 633. Rory Spence suggests that, in the context of Indonesian religious traditions, it literally means 'the guardian spirit of a place'.

<sup>28</sup> Harry Launce Garnham, *Maintaining the Spirit of Place : a Process for the Preservation of Town Character*, PDA Publishers, Mesa, Arizona, 1985, pp. 1 & 7.

<sup>29</sup> Grabar, op.cit., p. 19.

ties given to socio-economic improvement and technological achievement, cultural heritage protection has been given a lower priority in development policies and plans. Demolition and alteration of historic town centres, residential quarters, buildings, and sites of cultural heritage value have continued in the name of contemporary progress.<sup>30</sup> Destruction has also been seen as necessary to technological advancement, urban expansion, slum clearance, traffic improvement, modern industrialisation, exploitation of rising land values, town beautification and tourist development.

Regardless of which values override heritage practice, preserving cultural identity in the face of the possible negative impact of development requires appropriate methods and strategies. In Indonesia, the development of such methods and strategies is an urgent necessity, particularly to combat the lack of heritage protection policy and infrastructure.

#### 1.1.5 Conservation and Cultural Value

'There are places worth keeping because they enrich our lives - by helping us understand the past; by contributing to the richness of the present environment; and because we expect them to be of value to future generations.'  
Peter Marquis-Kyle & Meredith Walker, *The Illustrated Burra Charter*, 1992.<sup>31</sup>

Fundamental objectives of cultural heritage protection have changed, consistent with shifting intellectual concerns. Change has resulted from practice rather than theory. International heritage practice now views conservation as integral to urban development.<sup>32</sup>

Rapid socio-economic change and technological advancement has fostered recognition of the importance of protecting historic urban environments both for cultural survival and socio-economic improvement. Cultural objectives have been realised as crucial in attempts to maintain and enhance the spiritual meaning of urban environments, even though social and economic objectives are pivotal for the viability and livability of these environments. New designs must thus always be sensitive to

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<sup>30</sup> Said Zulficar, 'Opening Remarks', *Conservation as Cultural Survival*, Proceedings of Seminar Two held in Istanbul, Turkey in 1978, The Aga Khan Awards, 1980, p. xiii.

<sup>31</sup> Marquis-Kyle & Walker, op.cit., p. 15.

<sup>32</sup> Walter Muir Whitehill, 'The Right of Cities to be Beautiful', in *With heritage So Rich*, National Trust for Historic Preservation, Special Committee on Historic Preservation, United States Conference of Mayors, Albert Rains, chairperson, The Preservation Press, Washington, D.C., 1983, pp. 149-159; Nora Richter Greer, 'Preserving preservation', *Architectural Record*, vol.179, no.3, March 1991 p. 89; Peter H. Brink and H. Grant Dehart, 'Findings and recommendations', in *Past Meets Future, Saving America's Historic Environment*, ed. Antoinette J. Lee, The Preservation Press, Washington, D.C., 1992, pp. 18-9.

the heritage value of the area and be seen as part of the overall heritage protection process, as well as being socio-economically viable. Further discussion on the theoretical approaches to conservation is included in **Appendix III**.

Early approaches to heritage protection emphasised the retention of historical association, in which expression of time and place was seen as central. The remaining single pillar of oak among the cut stone ones found at the Temple of Hera at Olympia, Greece, which dates back to several centuries BC., for instance, shows an intention to retain evidence of antiquity. The maintenance of an entire ship, in which Theseus and the youth of Athens returned from their voyage to Crete, demonstrates an intention to commemorate important events and heroes of antiquity.<sup>33</sup> The preservation of important buildings, such as those of the Momoyama period, practised by the Japanese since early-sixteenth-century, is also example of an intention to commemorate important historical events and persons.<sup>34</sup>

The preservation of symbolic association and spiritual and religious devotion was also an early preoccupation. In Japan, for instance, the rebuilding of the Ise Shrine on an identical adjoining site once every twenty years since the second-half of the seventh century, shows an intention to sustain and renew a residence of a deity for symbolic and religious purposes.<sup>35</sup> The repeated reconstruction of the Golden Temple of the Sikhs in India after destructive attacks by Moslem invaders during the seventeenth and eighteenth centuries shows a similar purpose.<sup>36</sup>

Later conservationists, particularly the Europeans, recognised pure artistic value, in which romantic fascinations with remains of the older age were seen as essential. Appreciation for such remains were focussed on their moral and sentimental significance rather than authenticity of elements and materials. Preservation thus often involved the replacement of damaged parts with alien newer elements. The restoration of the Arch of Titus in the early nineteenth century demonstrated such an approach.<sup>37</sup>

Wider cultural considerations, such as the appreciation of aesthetic, scientific and social values, have since been generally recognised. The need for an appropriate

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<sup>33</sup> Walter Muir Whitehill, 'Promoted to Glory. The Origins of Preservation in the United States', in Albert Rains, chairperson, op.cit., p. 137.

<sup>34</sup> John B. Kirby Jr., *From Castle to Tea House: Japanese Architecture of the Momoyama Period*, Charles E. Tuttle, Tokyo, Japan & Rutland, Vermont, 1962, p. 52.

<sup>35</sup> Arthur Drexler, *The Architecture of Japan*, reprinted edn., Arno Press for The Museum of Modern Art, New York, 1966, pp. 35-9.

<sup>36</sup> Pardeep Singh Arshi, *Sikh Architecture*, Intellectual Publishing House, New Delhi, 1986, pp. 89-90.

<sup>37</sup> Robert Garvey Jr., 'Europe Protects Its Monument', in Albert Rains, chairperson, op.cit., pp. 177-8.

balance between various aspects of cultural values has been an overruling concern. A combination of values has underlain most cases of cultural heritage protection, even though a prevailing value can usually be identified.

Recognition of aesthetic value, which is based upon intrinsic aesthetic merit and scenic value, is often combined with genuine *pieta*, so that heritage assessment was usually based on these three factors.<sup>38</sup> This has fostered the international practice of preserving a large range of grand-scale and beautiful buildings: aristocratic residences, religious and civic buildings, and public entertainment venues.

A growing awareness of the importance of heritage sites and structures as a resource for educational purposes has resulted in the recognition of scientific value. These sites and structures provide documentary evidence, the damage of which will result in an irreverssible loss. They demonstrate evidence of process or function and creative and technological achievements of the past. The Victorian Brewery and the Bryant & May Match Factory in Victoria, Australia<sup>39</sup>, and the Oatlands Flour Mill in Tasmania, Australia, for example, provide evidence of historic process or function and technological achievement. Such evidence includes a large range of industrial heritage that exhibits the processing of food, building materials, clothes and textiles, metal smelting and foundries, as well as the function of transport and other services like water supply, sewerage, and lighting.<sup>40</sup> The effort to preserve historic room settings as museums, such as those at Henry Francis du Pont Winterthur Museum and the Metropolitan Museum of Art in New York, can be another example of the intention to protect evidence of creative achievement.<sup>41</sup>

Internationally recognised social value has been based upon the importance of heritage sites and structures as representative of ways of life, customs, spiritual beliefs and political life, associated with all strata of a society. The conservation of aboriginal sites, such as dreaming-tracks and sacred sites in Uluru-Katatjuta National Park, rock-art in Kakadu National Park, and open campsites in Lake Mungo National Park, for instance, demonstrates the spiritual beliefs, art and history of the Australian abo-

<sup>38</sup> Osbert Lancaster, 'What should we preserve?', in *The Future of the Past : Attitudes to Conservation 1174-1974*, ed. Jane Fawcett, Whitney Library of Design, 1976, pp. 65-73. *Pieta* literally means dutiful religious devotion or observance of religious principles. See : Wilkes, op.cit., p. 1161.

<sup>39</sup> Graeme Davison, 'What makes a building historic?', in *A Heritage Handbook*, eds. Graeme Davison & Chris McConville, Allen & Unwin, Sydney, 1991, p. 73

<sup>40</sup> See : Miranda Morris-Nunn & C.B. Tassel, *Launceston Industrial Heritage : a Survey*, Australian Heritage Commission & Queen Victoria Museum of the Launceston City Council, Launceston, 1982; Tony Haskell, *Caring for Our Built Heritage : Conservation in Practice*, E&FN Spon, London, 1993.

<sup>41</sup> William J. Murtagh, *Keeping Time*, Sterling Publishing Company, New York, 1990, pp. 80-3.



rigines.<sup>42</sup> House-museums such as that of George and Martha Washington in Mount Vernon, America<sup>43</sup>, Elizabeth Farm in Parramatta, New South Wales, home of John and Elizabeth Macarthur, among the first settlers of Australia, as well as Franklin House, Entally House, and Clarendon House in Tasmania, Australia, demonstrate ways of life and customs of important persons. The museum-city Williamsburg in Virginia, America, is a well-known example of the exhibition of earlier ways of life and customs.<sup>44</sup> Outdoor museums, such as the Artur Hazelius' Nordiske Museet in Stockholm, Sweden<sup>45</sup> and Old Salem in North Carolina, America<sup>46</sup>, are other examples. Despite being representatives of the dark side of political history, the preservation of concentration camps in Germany, penal settlements in Australia, and Dutch colonial fortifications in Indonesia also demonstrate the recognition of social significance.

## 1.2 Concepts

### 1.2.1 Place

'Place means site, area, building or other work, group of buildings or other works together with associated contents and surrounds.'  
Australia ICOMOS, *The Burra Charter*, 1988.<sup>47</sup>

Architectural heritage protection involves the conservation of places. For the purpose of heritage conservation, the concept of place goes beyond "bricks and mortar". The place itself has heritage value.<sup>48</sup> A place can invoke symbolic association and embody a unique quality that, in either case, is difficult to define. A place is both a venue for, and a reminder of, events in the life of a community. A place may be a part of a community's spiritual life; it may be an embodiment of a sacred ancestor, or a commemoration of one of their deeds. A place may also be perceived as the residence of mythical spirits or deities by a community of believers.

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<sup>42</sup> Australian Heritage Commission, *Special Aboriginal Places*, Australian Government Publishing Service, Canberra, 1991; Andree Rosenfeld, *Rock Art Conservation in Australia*, Special Australian Heritage Publication Series No.2, Australian Government Publishing Service, Canberra, 1985; Josephine Flood, Ian Johnson & Sharon Sullivan, eds., *Sites and Bytes : Recording Aboriginal Places in Australia*, Special Australian Heritage Publication Series No.8, Australian Government Publishing Service, Canberra, 1989.

<sup>43</sup> Murtagh, op.cit., p. 78.

<sup>44</sup> Whitehill, op.cit. pp. 143-5; Murtagh, op.cit. pp. 95-6.

<sup>45</sup> Murtagh, op.cit., pp. 92-3.

<sup>46</sup> *ibid*, p. 90.

<sup>47</sup> Australia ICOMOS, *The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter)*, 1988, n.p.

<sup>48</sup> Marquis-Kyle & Walker, op.cit., p. 11.

Written, graphic, and audio-visual documents cannot entirely reveal a sense of place. A perception of the sense of place can only be gained through the experience of physical evidence and the physical setting. Physical experience provides valuable information about the boundaries of the place, the component parts, and their significance.

Sufficient knowledge of both the history and the fabric of a place is required in order to understand the importance of a place. Fabric denotes all the physical material of a place.<sup>49</sup> It comprises obvious things like building materials. It also comprises subtle features : signs of use that accompany age as found in archaeological sites, aboriginal and traditional symbols that express spiritual sacredness, the physical arrangement of districts that expresses the social structure of the community, or the physical arrangement of towns representing their economic relationships. Systematic investigation is needed to understand the nature of the fabric, its creation, alteration, and its current stability.<sup>50</sup>

### 1.2.2 Historic Context

'The past itself is gone - all that survives is its material residues and the account of those who experienced it. No such evidence can tell us about the past with absolute certainty, for its survival on the ground, in books, and in human heads are selectively preserved from the start and further altered by the passage of time.'

David Lowenthal, *The Past is a Foreign Country*, 1985.<sup>51</sup>

Current cultural heritage protection requires a comprehensive site evaluation through the preparation of conservation plans. The preparation of the conservation plan, in turn, requires an understanding of the relative significance of the heritage resources in a broader historic context. A set of historic themes or contexts serves as a systematic source of reference needed for any decision-making regarding the future of the resources. Thematic or contextual reports serve as dynamic tools rather than static documents.

Hamrick and Speulda define 'historic context' as a continuous whole examined through the collection of information, the identification and evaluation of resources, and the definition of treatment procedures. It is an organisational format that groups information about related historic properties, based on thematic topics, geographic boundaries and chronological periods. The use of theme or topic as a conceptual ba-

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<sup>49</sup> *ibid.*, p. 13.

<sup>50</sup> *ibid.*, p. 14.

<sup>51</sup> Lowenthal, *op.cit.*, p.xxii.

sis for developing the context generates a thematic study, while the use of geographical areas produces a place-oriented or cultural geographic study. A chronological context can be established by dividing the total time span of the history into recognisable periods.<sup>52</sup>

Historic context is linked to tangible historic properties or resources. These resources can be defined as groupings of individual properties based on a set of shared physical or associative characteristics, including site types, architectural styles, and building materials. In addition to the intact built environment, archaeological sites and natural landscapes form an important part of an historic context.<sup>53</sup>

Historic context therefore contains a comprehensive summary of all aspects of the history of the resources, comprising historic themes, spatial boundaries and temporal boundaries.<sup>54</sup> It is important to note, however, that the temporal boundaries of the chronological periods are distinguished by fundamental changes in political, economic, or social conditions, rather than by the end-date periods or pivotal events.

### 1.2.3 Cultural Significance

The cultural significance of a place is embodied in its fabric, its setting and its content; in the associated documents; in its use; and in people's memory and association with the place.'

Peter Marquise-Kyle & Meredith Walker, *The Illustrated Burra Charter*, 1992.<sup>55</sup>

Cultural significance is a concept which suggests criteria for estimating the value of places. The places which are of significance are those which foster an understanding of the past, enrich the present, and will be of value to future generations. Historic, aesthetic, scientific, and social values are included in the concept of cultural significance in the Burra Charter. Historic value to a large extent underlies all of the other values as it encompasses the history of aesthetics, science, and society.<sup>56</sup>

Aesthetic value involves aspects of sensory perception. The criteria include consideration of the form, scale, colour, texture, and material of the place, the craftskill it displays, as well as the smells and sounds associated with the place and its use.

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<sup>52</sup> James Hamrick & Lou Ann Speulda, *Handbook to Historic Preservation Planning in Oregon*, Oregon State Historic Preservation Office, Salem, Oregon, 1989, p. 13-4.

<sup>53</sup> loc. cit.

<sup>54</sup> Hamrick & Speulda, op.cit., p. 1.

<sup>55</sup> Marquise-Kyle & Walker, op.cit., p. 15.

<sup>56</sup> Australia ICOMOS, 'Guidelines to the Burra Charter : Cultural Significance', in Australia ICOMOS, 1988, op.cit, n.p.

Association with particular artistic ideas and principles may also create aesthetic value.

Assessment of historic value requires examination of the history of aesthetics, science, and society. The criteria includes association with an historic person, event, phase, or activity. The substantial intactness of a place is also important, so that the significance is greater if evidence of the events and associations survives in situ. The events or associations, however, may be so important that a place retains significance regardless of surviving evidence and subsequent changes.

Social value encompasses the qualities of a place as a focus of cultural sentiment for a community, both for the majority and minority groups. It represents the identity, aspirations, and achievements of the community. Criteria include spiritual meaning, symbolic merit, communal prestige and pride, and political intention.

Scientific value depends upon the potential of a place in revealing substantial information, and the degree to which this information is valuable for further research. The criteria include rarity, distinctive qualities, representational quality, expression of creative and technological achievements, and demonstration of historic processes or functions.

North American practice tends to assign significance according to specific criteria, while the Burra Charter suggests that categorisation is one approach to understanding a concept which has a very broad definition.<sup>57</sup> It is crucial to make clear definitions of specific criteria to be adopted and adhered to in assessing the significance of a place. A lack of well-defined criteria will lead to the loss of a degree of certainty.

The purpose of the assessment of significance is to provide a more accurate source of reference for decision-making regarding the future of the place. The preparation of a statement of significance, unlike the conservation plan, does not involve such issues as the need for conservation action, legal constraints, possible future uses, structural stability, or costs and returns. The significance of a place, moreover, should not be confused with the potential for future use; rather, they should be separately examined in order to avoid any bias in the findings.<sup>58</sup>

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<sup>57</sup> American legislation provides for clear categorisation of heritage value in contrast to the more elastic concept of cultural significance used in Australian studies.

<sup>58</sup> Australia ICOMOS, op.cit., n.p.; also see : HJM Consultants, *Preparing an Inventory of Heritage Resources*, a paper prepared for the PATA Foundation, PATA Foundation Heritage Conservation Series v.1, Canberra, ACT, 1991, p. 8.

Despite the fact that the Burra Charter has been applied to a wide range of cases, its concept of cultural significance is "Australian" in nature, in the sense that it is very much material-oriented.<sup>59</sup> The concept suggests that symbolic and spiritual associations can be more important than surviving evidence and subsequent changes; however, it still emphasises the importance of substantial intactness of the fabric of a place.

Using a slightly different approach, Feilden classifies the significance of a place into three groups : emotional, cultural and use values. The emotional values of a place depend upon its capacity to reveal wonder, identity, spiritual meaning and symbolic quality, which is determined by the cultural and physical context of the place. The cultural values of a place depend upon its potential to demonstrate documentary and scientific evidence, historical continuity, archaeological evidence, effects of age, scarcity, aesthetic merit, and architectural quality. The cultural values also depend upon the role of the place in enhancing townscape, landscape, and ecological setting. The use values of a place depend upon its capacity to fulfill functional, economic, social and political purposes.<sup>60</sup>

#### 1.2.4 Historic District

Conservation strategies which deal with historic districts recognise that individual buildings are part of a larger entity, which itself has significance. This approach to historic district is akin to the archaeological concept of *anastylosis*.

*Anastylosis*, which literally means 'raising the columns', is a procedure adopted by archaeologists in carrying out restoration works through reconstruction of fallen parts by reassembling. This procedure is incorporated in the Venice Charter as an idea to prevent over-restoration.<sup>61</sup> In building restoration practice, archaeologists restore fallen stones and replace the lost parts by adding new material to fill in critical gaps or provide support. In the restoration of the Borobudur Temple in Central Java, Indonesia, for instance, plain stones were introduced partly to replace the lost original carved ones and to support the structure.

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<sup>59</sup> Joan Domicelj claims that the Burra Charter has been adopted and used not only throughout the states, territories and Commonwealth of Australia, but also in countries of Latin America, North America, Europe, and Asia. See : Marquis-Kyle & Walker, eds., op.cit., p. 5.

<sup>60</sup> Interpreted from Feilden's classification. See : Bernard M. Feilden, *Conservation of Historic Buildings*, Butterworths, London, 1982, p. 6.

<sup>61</sup> Lewis, in eds. Bourke, Lewis & Saini, op.cit. p. 6 ; Piero Sanpaulesi, 'Conservation and Restoration : Operational Techniques', in *Preserving and Restoring Monuments and Historic Buildings*, Museums and Monuments XIV, Unesco, 1972, pp. 160-3.

The concept of anastylosis, however, was developed in classical archaeology and is very "European" in nature. It emphasizes the importance of authentic evidence and the integrity of a structure in its original site. As the concept was originally concerned with ruins of classical temples, it considers the fabric of the structure and its relation to the surroundings to be of prime importance. Its applicability to traditional buildings of perishable materials such as timber, thatch, or mud, therefore, needs further consideration.

If applied to districts, the concept should be understood as 'the completion of an ensemble'. It indicates the recreation of large parts, but not the entirety, of an area to restore it to its earlier form with regard for its authentic fabric. This principle has been used by the United States National Parks Service to define acceptable reconstruction. The total rebuilding of a whole or the majority of an area in order to return it to its condition at a particular time in the past, as in the cases of Warsaw and Amsterdam, therefore, is not in any sense conservation.<sup>62</sup>

The question of appropriate treatment is important in the case of the conservation of vernacular structures of perishable materials. The inevitable natural process of aging with patina or decay is preferable to the patching of inappropriate materials and the use of inappropriate techniques which result in greater damage. Both the Venice and Burra Charters emphasise the use of traditional materials and techniques for repairing deteriorating structures where possible, while use of the modern ones is acceptable only where they have been proven to stand the test of time.<sup>63</sup>

Conservation of districts or complexes may not be necessary in cases where spiritual meaning or symbolic quality is seen as the primary heritage value. The regular total rebuilding of the Ise Shrine in Japan on its adjacent site, for instance, is intended to recreate and preserve the sacred residence of a deity, rather than to retain the authentic fabric of the temple on its original site. Similarly, the total reconstruction of the main part of Surakarta Palace in Indonesia after its destruction by fire, is intended to retrieve and preserve a symbol of Javanese cultural tradition and political, rather than to conserve the remaining original fabric.

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<sup>62</sup> Miles Lewis, 'Keynote address. Conservation : a regional viewpoint', in *Protecting the Past for the Future*, eds. Bourke, Lewis & Saini, p. 9.

<sup>63</sup> *ibid.*, p. 11.

## 1.3 Methods

### 1.3.1 Urban Planning and Design

As the protection of a living urban heritage needs to be integrated into overall town planning processes, a number of planning and design considerations must be taken into account. A comprehensive urban planning process embraces physical, social, and economic planning. Given the architectural viewpoint of this study, the discussion is concerned only with physical aspects which embody attempts to achieve both physical improvements and socio-economic development.

The practice of urban planning is concerned with three factors: (1) physical patterns; (2) sensory and psychological aspects; and (3) technical considerations.<sup>64</sup> The physical patterns include land use, transportation, housing and public facilities. The sensory and psychological aspects include aesthetic quality, "imageability" and complexity.<sup>65</sup> The technical considerations include site selection, site controls, site utilisation and administrative coordination.

The process of urban and architectural design requires a set of criteria, both non-measurable and measurable. In order to achieve an effective urban and architectural design process, it is most appropriate if qualitative criteria are established first. Quantitative measurements should thus be consistent with the pre-determined qualitative criteria.

Non-measurable criteria are concerned with the qualitative assessment of the sensory and psychological aspects, including: (1) ease of access; (2) context compatibility; (3) enhancement of views; (4) expression of identity; (5) evocation of meaning; and (6) livability.<sup>66</sup> There are no exact definitions to explain these principles of urban quality. Differing theories, terms, and meanings are applied in various places by various designers, even though they attempt to achieve similar objectives.

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<sup>64</sup> See : Larry Witzling, 'Physical Planning', in *Introduction to Urban Planning*, eds. Anthony J. Catanese & James C. Snyder, McGraw-Hill, New York, 1979, pp. 175-205; Hamid Shirvani, *The Urban Design Process*, Van Nostrand Reinhold, New York, 1985, pp. 5-103; F.A. Schwilgin, *Town Planning Guidelines*, Department of Public Works, Ottawa, 1974, pp. 124-131.

<sup>65</sup> According to Lynch, *image* comprises three components : identity, structure and meaning, which always appear together in the environment, can be vividly identified, analyzed, perceived and experienced. *Imageability* is therefore defined as the quality in a physical object, such as shape, color, and arrangement, which provides a high probability for evoking a strong image in any observer. See : Kevin Lynch, *The Image of the City*, MIT Press, Cambridge-Mass., 1960, pp. 8-10.

<sup>66</sup> Shirvani, op.cit., pp. 121-132.

Measurable criteria, which are concerned with the quantitative assessment of physical patterns, forms, and the natural factors of urban environments, fall into two categories : conventional and innovative measurements. The former are more restrictive and often less effective because they provide no alternative for design solutions. They include floor-area-ratio, sky-exposure plane, and density. The latter, on the other hand, are more flexible and can be more effective because they lead to a number of design alternatives for different results and benefits. They include creative zoning and land-use-intensity assessment.<sup>67</sup>

A conservation-oriented approach to urban planning and design requires consideration of the protection of heritage value. All planning and design in an area should be aimed at the retention and enhancement of the heritage value of the place, while improving both the socio-economic life of the inhabitants and the physical quality of the built-environment. Such objectives must consider the historic context and cultural significance of the place and the people, and follow a procedure which incorporates heritage principles and issues.

Historic context and cultural significance of an area must guide every decision regarding its future, the understanding of which can only be achieved through investigation of the conditions of the fabric and setting of the place and examination of the way of life and aspirations of the people. Such research will reveal constraints and requirements pertaining to both the place and the people which constitute important factors in planning and design analysis.

An appropriate procedure must guide every planning and design process. Procedures should address the analysis of historic context and cultural significance, the development of conservation policy, and the provision of directions for policy implementation. This conservation-oriented plan should precede the establishment of an urban development plan of an area, so that any necessary change to its fabric and setting ensures the retention and enhancement of its heritage value. Both appropriate heritage research and conservation planning thus constitute prerequisites to every urban planning and design process.

### **1.3.2 Heritage Research**

Studies and surveys record investigations of heritage resources, allowing the historic context and the cultural significance of places to be understood. Such research pro-

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<sup>67</sup> See : Shirvani, op.cit. , pp.133-6 and Raquel Ramati, *How to Save Your Own Street*, Dolphin Books-Doubleday, Garden City, New York, pp. 128-140.



duces reports and inventories which not only present the examination of the context, the identification of the heritage resources, and the analysis of their significance, but also express directions for the development of conservation policy and programmes. The reports and inventories also serve as records of data, which guide further research. Heritage publication also plays an important role in raising public appreciation of the historic environment.

Heritage research includes historical, architectural, and archaeological studies and surveys. Historical research reviews the development of a place, revealing the formation of the community, the settlement, and its spatial boundaries. Such research is most useful when it reviews the development of the community and the formation of the built-up area as a whole, rather than focusing on historic figures. Archaeological research investigates and excavates archaeological remnants which support historical research. Architectural research investigates the development of both urban and architectural forms in historical, aesthetic and technical terms.

### **1.3.3 Conservation Planning**

A conservation plan is the primary strategy for the protection of places of heritage value. Before the plan is established, a place should not receive any physical intervention unless requiring urgent protective measures. When such an emergency intervention is unavoidable, a rapid record of the place should be undertaken both before and after the measures.

Conservation planning can be divided into two stages : first, the analysis of the place, and secondly, the establishment of the policy. The analysis includes the collection and recording of both documentary and physical evidence, the analysis of the evidence and the formulation of conclusions, and the establishment of a statement of significance. The policy comprises considerations of constraints and requirements, the formulation of a conservation policy, and proposals for policy implementation. As this preparation involves a variety of disciplines, it is necessary to adopt a general approach; the plan may then follow the conventions of any discipline.<sup>68</sup>

The above procedure, however, needs to be reconsidered for it does not include an examination of the wider historical background of the place and the people. The procedure starts from the analysis of the documentary and physical evidence of the

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<sup>68</sup> J. S. Kerr, *The Conservation Plan : A Guide to the Preparation of Conservation Plans for Places of European Cultural Significance*, National Trust of Australia in NSW Publications, Sydney, 1982, p. 10; also see : Australia ICOMOS, 1988, op.cit. n.p.

place, both of which emphasize the fabric. An understanding of the historic context of the place needs to be fostered prior to the assessment of its significance. An historical review of the place and the people and an examination of the historic context, therefore, needs to be incorporated to the primary stage of the preparation of the conservation plan.

The first stage suggested above focuses on the fabric or physical substance of the place. This is apparently consistent with the nature of the Burra Charter, which considers fabric as the most reliable evidence of the history of a place. This stage does not include consideration of the people as inhabitants or users, who are the living subjects in the conservation process. In the case of the conservation of a living place, either an inhabited building or a viable urban area, people play an important role in the conservation process, so that the analysis of people as well as place must be incorporated.

The protection of living heritage in the form of viable historic urban areas is concerned with the dynamic activities and aspirations of the inhabitants. Such living places change along with the way of life and socio-economic activities of the people. The heritage resources of such places suffer from the pressures of development and threats of unsympathetic development. In order to safeguard the heritage resources while anticipating changing needs, heritage conservation policy needs to be integrated with the overall urban planning process.

The conservation planning of a living urban heritage, therefore, would be more appropriate if it comprised four stages : first, the examination of the historic context; second, the assessment of the cultural significance; third, the establishment of the conservation policy; and finally, the establishment of directions for policy implementation. The first stage must consider both the urban and architectural history of the place, and the socio-economic background and cultural foundation of the people. The final stage incorporates heritage research findings, urban planning issues, and urban and architectural design principles.

Naturally, visual assessment of urban and architectural forms, structures, and qualities must precede the establishment of design principles. The assessment addresses: urban setting revealed by town/landscape relationship; skylines and focal points created by higher buildings and structures; local character created by qualities of

spaces and layouts in the townscape; and newer buildings and structures resulted from infill design.<sup>69</sup>

## **1.4 Precedents**

### **1.4.1. Western Experience**

Western attitudes toward architectural heritage conservation have dominated the rapid development of professional conservation practice in this century. Western practices have served as the theoretical and methodological model for international development in conservation.

Until the 1960's the purpose of conservation was to preserve or restore monuments in their original character, with historical and artistic value as the main concern.<sup>70</sup> European and North American legislation, which has served as a model for much of the world, reflects this essentially museological view of the central purpose of conservation. Western heritage conservation has also emphasised the protection of material objects through integrating conservation with urban planning processes.

The application of these attitudes to developing countries often led to general ineffectiveness in conservation efforts; in these countries, cultural views about the built environment differed widely from that of the West and from one another, the pace of change exceeded that of Western societies, and planning constraints were far weaker.

In the 1980's, a broadening of Western views on the purposes of conservation, combined with greater emphasis on social issues, has created more international commonality in some areas of conservation theory.

### **The State of Conservation Theory**

Current thinking among conservationists in many European countries, North America and Australia contains views on significance, architectural treatment, social impacts and community participation which have altered and enriched the more museological approaches of earlier decades. In Australia, there is an emerging concern

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<sup>69</sup> Roy Worskett, *The Character of Town : An Approach to Conservation*, The Architectural Press, London, 1969, pp. 73-4.

<sup>70</sup> Robert R. Garvey Jr., 'Europe protects its monument', in *With Heritage So Rich*, National Trust for Historic Preservation, The Preservation Press, Washington, D.C., 1983, p. 177.

about cultural values and about how natural and cultural environments relate to heritage matters.<sup>71</sup> Conservationists are attempting to shift discussion of cultural identity and its conservation from the 'how's and the 'when's to a deeper examination of the 'why's.<sup>72</sup>

The central issue of heritage conservation is no longer urban and architectural planning, but rather the rehabilitation of existing areas and structures through community involvement. Agreement has been reached concerning the significance of historic districts and their problems, as well as appropriate assessment methods. Such districts require modernisation in order to maintain and enhance their livability; conservation therefore demands development measures. The modernisation of housing, improvement of traffic circulation and parking, and incorporation of commercial facilities and services into the contemporary life of such districts are principal issues.<sup>73</sup>

Social issues have underlain the conservation movement in American cities. The issues of historic district conservation are as complex as housing improvement, urban renewal, or urban expressway development, which usually require relocation of low-income families. Solutions demand more careful investigations of historic areas, more skilful economic analysis, more sophisticated and imaginative planning, and better and more sensitive architectural design.<sup>74</sup>

Historic district planning is not necessarily focussed on urban centres, because few districts are truly historic centres of their towns. Mining towns, mill towns, whaling ports, and communities of ethnic or religious character make up most of the American historic districts, rather than true historic centres of towns and cities which have lost their great significance due to economic and social changes. Early conservation programmes tended to statically preserve these historic districts as museum towns rather than conserve them as vital historic areas which offer historical continuity, economic viability and local identity. American conservationists are now beginning to shift their focus to more complex urban issues, attempting to generate urban development in the effort to sustain urban life.<sup>75</sup>

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<sup>71</sup> Meredith Walker, in 'Summary', in *A Sense of Place? A conversation in three cultures*, eds. J. & S. Domicelj, for Australian Heritage Commission, Commonwealth of Australia, Australian Government Publishing Service, Canberra, 1990, p. 68.

<sup>72</sup> Sheridan Burke, in loc. cit.

<sup>73</sup> Frederick Gutheim, 'Preface', in *Continuity and Change : Preservation in City Planning*, Papageorgiou, Alexander, Pall Mall Press, London, 1971, p. 22.

<sup>74</sup> Gutheim, op.cit., p. 21.

<sup>75</sup> Gutheim, op.cit., p. 21.

The central purpose of heritage conservation is currently in question in Australia. The previous focus on physical conservation is shifting to a greater concern for conserving more intangible elements of urban community, such as social identity. A comprehensible local society is essential to cultural identity, despite the difficulty of conserving social identity in a rapidly changing urban community. Change in a society will irrevocably alter the cultural significance of a place. Rapid social and physical restructuring, which involves large numbers of people, activities and land uses, will alter old social patterns and relationships in culturally significant urban areas recognised as worthy of conservation, as in the case of Pyrmont/Ultimo, Sydney.<sup>76</sup>

The current shift in conservation approach has given rise to an awareness of the previous tendency to overemphasise and be uncritical of conservation measures, and to condemn modern architecture. The preservation of an old part of a town as a kind of museum has been realised as an arrest of development, which is as harmful as total commercialisation or, conversely, deterioration.<sup>77</sup> Modern architecture has been recognised as a part of historical continuity, which will be a heritage for the future.

### **The State of Conservation Methodology**

Organisational, legal, and financial methods of heritage protection, as well as urban planning and architectural treatments reflect altered approaches to the purpose of conservation. In the West, most conservation measures start from the fundamental conviction that old parts of the town should retain their historical structures and make them accessible to modern use. In the socialist states, no clear distinction is made between development planning and protection measures.<sup>78</sup> In the West, political decisions are usually taken by local authorities. In socialist states, on the contrary, conservation measures are implemented in accordance with the instructions of the national institutes for the protection of historical buildings and sites.<sup>79</sup>

The distinction between urban conservation and urban planning is more blurred than previously. Urban planning has been principally concerned with the overall concept and has viewed the individual buildings as part of it, whereas the protection ap-

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<sup>76</sup> Stephen Harris, 'Pyrmont/Ultimo in the Sydney Context; A Response', in eds. Domicelj, J. & S. , op.cit., pp. 35-42.

<sup>77</sup> Hans-Dieter Dyroff, ed., *Protection and Cultural Animation of Monuments, Sites and Historic Towns in Europe*, German Commission for UNESCO, Bonn, 1980, p. 14.

<sup>78</sup> *ibid.*, p. 10.

<sup>79</sup> *ibid.*, p. 10.

proach, both in theory and by tradition, tackles the problem the other way around. However, it is no longer practicable to maintain this sharp distinction. Many local authorities have come to recognise that urban conservation implies more for the planning authorities than was the case in the 1960's when the main emphasis was on new buildings.<sup>80</sup>

The research role of the conservationist has undergone shifts as well. The preparation of local heritage studies in New South Wales, Australia has tended to move from a purely research and investigative process to a process involving communities to a greater extent. Conservationists are beginning to seek a facilitating role in which they work from within to incorporate the aspirations of communities into the heritage identification, planning, and management processes.<sup>81</sup>

As regards the method of listing or classifying culturally-significant sites, some countries do not have different categories, while some differentiate several degrees of importance based on historical and artistic significance. In Bulgaria and Poland the list may include those of local interest. Most countries have made provision for the protection of both the actual buildings and their immediate environment, which extends to ensembles or groups of buildings. Except in Canada, Greece and Italy, legally protected zones always relate to the preservation of groups of buildings, streets, squares and districts.<sup>82</sup>

Architectural treatment reflects an emerging sensitivity to interior architecture. Some countries, particularly Bulgaria, Italy and Netherlands, are anxious to preserve not only the outward appearance of buildings but also their interiors, starting from the principle that the use of old buildings should depend as far as possible on the existing structure, so that extensive alterations should be avoided. The choice of colour for restored houses is an important area where private owners need advice. The design of new buildings in an historical context remains a problem. Many successful schemes for the incorporation of new buildings are to be found in Belgium and the Netherlands. There is a general rejection of historicising -- the building of new structures in a older style. Often inconspicuous architecture has been chosen to avoid argument and conflict.<sup>83</sup>

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<sup>80</sup> *ibid.*, p. 11.

<sup>81</sup> Burke, in 'Discussion', in eds. Domicelj, J. & S., *op.cit.*, p. 61.

<sup>82</sup> Dyroff, ed., *op.cit.*, p. 10.

<sup>83</sup> *ibid.*, p. 12.

Training for craftspersons and architects in conservation work has emerged as a critical area in the development of conservation. In many countries the authorities have organised construction groups composed of craftspersons with necessary traditional skills directed by restorers and architects. Nearly everywhere, the traditional techniques and the "feeling" for old buildings have been lost, mostly because of the inadequate training of craftspersons and architects.<sup>84</sup> Courses on craftskill for conservation work organised by ICCROM in Venice may be the first internationally recognised programme of such a specialised training. Other craftskill training programmes have been conducted in conjunction with universities, such as the courses occasionally held by the National Centre for Cultural Heritage Science Studies in the University of Canberra.

Urban conservation research is carried out through formal procedures in many Western countries. In most European countries the central authority has various research agencies which address many aspects of conservation. In socialist countries heritage research activities are carried out in universities, which have separate departments for basic research in this field, or research institutes for the history of architecture and building. Several countries maintain laboratories which test and apply restoration techniques, as well as develop methods of dating and identifying buildings and materials.<sup>85</sup> In Australia formal heritage research activities are part of university programmes, such as in the above mentioned National Centre in Canberra, which focusses on scientific and technical aspects of heritage conservation, and the Post Graduate Programme on Heritage Conservation in the University of Sydney which focusses on theoretical and philosophical aspects. The activities are also the responsibility of relevant governmental bodies, such as the Department of Construction and the Department of Parks Wildlife and Heritage, as well as municipalities and city councils in each state.

### **Conservation Administration**

In Western countries, heritage protection practice requires a partnership of government at all levels, and involvement of voluntary heritage organisations, various community groups and individuals.

In Australia it involves commonwealth, state and local governments. The Commonwealth government administers acts which facilitate protection of aspects of the national estate, and establishes government bodies which carry out advisory and ad-

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<sup>84</sup> loc.cit.

<sup>85</sup> *ibid.*, p. 13.

ministrative tasks in protection practice.<sup>86</sup> The government bodies include the Australian Heritage Commission, which is a policy advisory and administrative body responsible for the preparation of a comprehensive list of all places in Australia considered as having heritage value. This list is called the Register of the National Estate. Other bodies are the Department of Arts, Heritage and Environment, the Australian National Parks and Wildlife Service, the Great Barrier Reef Marine Park Authority, and the Department of Aboriginal Affairs.

### **Conservation Legislation**

Nearly every country in Europe has a Monuments Protection Act as part of its national legislation.<sup>87</sup> Some countries have special laws pertaining to conservation; the others use different legal forms such as planning and building regulations and comparable legal instruments. Some laws have been enacted to combine urban renewal and conservation measures. They contain specific provisions, such as financial support, and structure of land tenure. Conserving isolated parts of urban areas is problematic if it is not part of an overall urban development and conservation scheme.<sup>88</sup> In the U.K. and British Commonwealth countries, non-governmental organisations such as National Trusts have tended to drive local and even national policy through their quasi-governmental status.

American legislation relevant to protection of districts has been widely influential. The earliest legislation to protect historic districts dates from 1931 when the 'Old and Historic District of Charleston' was established in South Carolina in the United States. The use of zoning to preserve historic districts had begun in Charleston in 1924. This legislation set up an Historic Districts Commission whose approval is necessary for the alteration of exterior architectural features visible to the public, and for the demolition of structures within the district. Administration of the district thus rests in local hands. A survey of the economic and physical character of the city and its buildings was undertaken, as well as an architectural inventory. Inventory criteria were in five categories: nationally important, valuable to the city, valuable, notable, and worthy of mention.<sup>89</sup> A second type of historic districts legislation derives from the development of a centralised programme operating at the state level. Responsibility for restoration and maintenance generally falls on private investors.

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<sup>86</sup> Australian Heritage Commission, *Protecting Australia's National Estate*, Australian Heritage Commission, Canberra, 1985, p. 1-4.

<sup>87</sup> Garvey, op.cit., p. 178.

<sup>88</sup> Dyroff, ed., op.cit., p. 9.

<sup>89</sup> Walter Muir Whitehill, 'The Right of Cities to be Beautiful', in *With Heritage So Rich*, National Trust for Historic Preservation, The Preservation Press, Washington, D.C., 1983, p. 150;



The 1966 Historic Preservation Act encourages the approach of historic districts conservation. It concluded that preservation efforts must concern themselves with historically and architecturally valued districts having "special meaning for the community", in addition to the recognition of architecture, design, aesthetics, and historic and cultural importance.<sup>90</sup>

### **Conservation Finance**

Nearly all Western countries have provided tax relief to encourage heritage investments, to a varying degree. In the socialist countries, various systems of grants, tax relief, and other methods have been developed. The variety has in most cases caused confusion and uncertainty, particularly among private owners.<sup>91</sup>

The first great change in the United States' tax laws to affect preservation occurred in 1976. The Tax Reform Act of 1976 balanced the scale of incentives and disincentives, allowing the rehabilitation of existing buildings to become as economically attractive to developers as new construction. This was later replaced by the Economic Recovery Tax Act of 1981 and the Tax Reform Act of 1986.<sup>92</sup> Heritage liens have been introduced in some localities.

### **The Role of Non-Governmental Organisations**

Conservation activity in Europe, Australia and North America is characterised by extensive dependence on organised non-governmental activity. Local and regional amenity groups have been formed, whose aims are to guard the interests of residents affected by urban planning. The National Trust in the United Kingdom has assumed a major role. The fact that the initiative for legislation on urban conservation comes from the Trust rather than the political parties demonstrates its political significance. The large degree of cooperation between government and local authorities on the one hand and citizens' action groups on the other is another characteristic of public involvement in the UK, the result of a long tradition. Public involvement with a view to asserting limited demands is most extensive in the UK, the Netherlands, and the Federal Republic of Germany.<sup>93</sup>

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<sup>90</sup> Gutheim, *op.cit.*, p. 19.

<sup>91</sup> Dyroff, *ed.*, *op.cit.*, p. 13.

<sup>92</sup> William J. Murtagh, *Keeping Time*, Sterling/Main Street Book, New York, 1988, p. 112.

<sup>93</sup> Dyroff, *ed.*, *op.cit.*, p. 13-4.

Apart from its function as a political force and information centre, the National Trust also features prominently in the preservation and use of historic buildings. As a non-profit foundation, it purchases buildings and properties which can be put to economic use, restores and manages them to offset or compensate for losses on individual properties. In Canada, houses are purchased, restored, and then sold in a revolving fund basis. In the Netherlands, old buildings are saved from decay by funds provided from public foundations.<sup>94</sup>

The Historic Charleston Foundation provides an early example of non-governmental activity in the United States. The Foundation was established in 1947 based on the historic district legislation set up in 1931. It aimed to educate the public on the value of historic buildings, to assist preservation, and to create a revolving fund, and the main objective was the conservation of "living communities". The activities included investigations and recordings, which enabled public interest groups to effectively participate in the control of architectural quality in urban environments.<sup>95</sup>

In Australia, regional branches of the National Trust of Australia operate at the state and territorial level. This volunteer-based conservation organisation has no legal powers, but possesses strong links with the federal government. Other voluntary conservation groups which play a vital role in conserving the National Estate in Australia are the Australian Conservation Foundation, the National Parks Association, the Conservation Council, the Environment Centre, the Wildlife Preservation Society, the Wilderness Society and the Conservation Trust. Societies of ornithologists, field naturalists, geologists, anthropologists, and archaeologists, and historical and museum bodies, service clubs, and local interest groups also make important contributions.<sup>96</sup>

#### **1.4.2 Non-Western Experience**

Cultural specificity is the main idea behind the World Decade for Cultural Development 1988-1997.<sup>97</sup> The challenge of maintaining tradition and continuity in an atmosphere of rapid change has become a central concern among many involved in conservation in non-Western countries. All conservation takes place within a cultural context. In Western European countries, that context is inclined to be taken for

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<sup>94</sup> loc. cit.

<sup>95</sup> Whitehill, op.cit., p. 150.

<sup>96</sup> Australian Heritage Commission, 1985, op.cit., pp. 5-21.

<sup>97</sup> Wolf Tochtermann, 'The Unesco Urban Experience, a Social Concern', in eds. Domicelj, J. & S., op.cit., p. 91.

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<sup>94</sup> loc. cit.

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<sup>96</sup> Australian Heritage Commission, 1985, op.cit., pp. 5-21.

<sup>97</sup> Wolf Tochtermann, 'The Unesco Urban Experience, a Social Concern', in eds. Domicelj, J. & S., op.cit., p. 91.

granted.<sup>98</sup> When transported to a colonial or post-colonial environment, however, conservation based on traditional European values can become an elitist, esoteric activity that few people concerned with the daily struggle for survival in the developing world can afford.<sup>99</sup> Failure to be explicit about which values are being used to support conservation policies -- for example aesthetic, academic, continuity of place, and ecological values identified in Britain -- brings with it failure to gain support for the policies themselves.<sup>100</sup> Moreover, conservation in developing countries must spring from a different, culturally specific set of values.

There is a basic problem in the Western view of conservation which assumes the cultural context and seldom has need to consider it explicitly. This isolation of conservation from cultural context is not serious when conservation is a part of the cultural values of the society, as in Great Britain, but may become so when policies are applied in cultures where concepts of conservation are unfamiliar. Even where the restoration of buildings is part of the social norm, the motivations may be religious rather than historic or aesthetic. Nationalism or regional pride may be a reason for selective conservation in countries where it is otherwise unfamiliar, but this may be for reasons of association with a hero, event or some other element which is fundamentally non-architectural.<sup>101</sup>

The European concern for material values expressed in architecture, and interest in monumentality and scale can be entirely alien in societies where grand monuments either do not exist, are anachronistic, or are not considered representative.<sup>102</sup> Rather than a static and sterile pursuit for the privileged elite, conservation must be part of, in sympathy with, and effective for dynamic social and economic development. It must respect indigenous cultures but address the problems of adapting and enhancing the physical fabric and vernacular styles appropriately and effectively to tackle poverty and inequalities.<sup>103</sup> Religious beliefs, national identity and social development must assume a central place in conservation programmes if they are to succeed in any meaningful way.

While basic physical needs tend to dominate planning agendas, conservation has a critical political dimension in colonial contexts. Conservation can represent a respect

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<sup>98</sup> Paul Oliver, 'Cultural Issues in Conservation Implementation', in *Conservation of Building in Developing Countries*, ed. Zetter, Roger, Oxford Polytechnic, Oxford, 1982, pp. 2-3.

<sup>99</sup> Roger Zetter, after Michael Safier, 'Conflict and Consensus, Conservation in Developing Countries: an Editorial Introduction', in Zetter, op.cit., pp. vii-viii.

<sup>100</sup> Robert Maguire, 'The Intangible Values of Conservation', in ed. Zetter, Roger, op.cit., pp. 20-4.

<sup>101</sup> Oliver, in Zetter, op.cit., p. 11.

<sup>102</sup> Oliver, in Zetter, op.cit., p. 11-2.

<sup>103</sup> Zetter after Safier, op.cit., p. viii.

for indigenous and vernacular environments which were ignored by colonial administrators. It requires acceptance and adaptation of cultures, buildings, building skills and technologies. In newer countries, an emerging sense of national identity can be both an impetus and a hindrance to conservation. National unity could hinder the retention of local character in that it masks cultural differences. However, the perceived lack of national unity and identity in newer countries is an additional stimulus for conservation activities. Despite political uncertainties, lack of clarity of purpose, and almost total lack of finance, conservation has value to developing countries in the contribution it may make to the creation of a more appropriate development model which simultaneously tackles poverty, deprivation, and inequality, while respecting cultural context.<sup>104</sup>

Changing attitudes to conservation in less developed contexts parallels shifting attitudes to conservation in the more developed countries. For example, higher value has been placed on vernacular rather than public or monumental sites, emphasis has been increasingly on preservation of communities rather than physical structures, and temporary or ephemeral sites and events have been recognised as culturally significant. However, even more recent European attitudes to conservation are not necessarily appropriate in other contexts. The higher value Western conservationists now place on indigenous environments may conflict with local values. Symbolic attributes of shelter, for many societies are culturally more important than material ones. Among the Hausa and Ndebele in Africa, for instance, the fixing of one design in time would run counter to the cycle of renewal which is part of their culture. Each year the interiors and the external walls are redecorated. Their topicality is part of their character; the replacement of older external decorations by new sculptured reliefs is a culturally significant activity.<sup>105</sup>

### **The State of Architectural Conservation Today**

In many African and Asian cases architectural conservation operates within the complex context of urban issues. Accelerated population growth and mobility has led to drastic changes in the urban form of cities. The rapid introduction of motorways into cities, introduction of new energy sources and services, the introduction of new technological equipment, and the rapid degradation of air and water quality, to name only a few, all have impacts on conservation of significant sites. Natural disasters and

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<sup>104</sup> Zetter, 'Conflict and Consensus, Conservation in Developing Countries: an Editorial Introduction', in Zetter, *op.cit.*, pp. xiii.

<sup>105</sup> Oliver, in Zetter, *ed.*, *op.cit.*, p. 8.

other environmental problems, armed conflicts, vandalism and theft also have devastating impacts on the integrity of historic sites.

In African, Asian and Pacific countries with a significant rural population, conservation faces additional challenges. Transportation and research costs are often unmanageable in developing national economies. The isolation of many significant village sites makes them difficult to maintain and document.<sup>106</sup> The continuing loss of traditional building skills means that vital maintenance and repair of materials and structures is not being carried out. In both urban and rural settings, the priority given to monuments places the preservation of vernacular precincts and buildings at a disadvantage.

Modernism, cultural development and cultural identity have become key issues of concern among conservationists. Perhaps the most significant concern is the lack of an infrastructure for conservation activities. In some countries, national government may have the legal responsibility for conservation without mechanisms and funding to make that responsibility a reality.<sup>107</sup> Practical obstacles include the lack of political will, administrative and legislative weakness, and the fact that conservation too often focuses on the archaeological dimension rather than the protection of buildings-in-use. Conservation is seldom a condition or component of international aid for development, and the critical need for training and education is often ignored, even by the international heritage movement.<sup>108</sup>

Training of planners has created particular problems. Planning education has tended to emphasise the provision of new buildings, new suburbs, or new towns on virgin sites, and to ignore ways of improving existing urban fabric. Many planners practising in Asian and African cities are unable to perceive, or unwilling to admit, the values inherent in traditional patterns. On a purely practical level, both politicians and planners would generally prefer to clear an area in order to begin anew without all the attendant problems, complexities, and uncertainties inherent in urban conservation.<sup>109</sup>

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<sup>106</sup> Mary Latham & Ramesh Manandar, *Considerations for Developing an Architectural Conservation Policy in Papua New Guinea*, Department of Architecture and Building, Papua New Guinea University of Technology, undated, n.p.

<sup>107</sup> *ibid.*, n.p.

<sup>108</sup> W. Pierce Rodgers, 'The Conservation of Buildings within Developing Countries : the State of the Art', in Zetter, ed., *op.cit.*, p. 16.

<sup>109</sup> Ronald Lewcock, 'Preservation versus Modernisation : Realities in Islamic Architecture', in *The Challenge to Our Cultural Heritage : Why Preserve the Past?*, Raj Isar, Yudhisthir, ed., Smithsonian Institute, Washington, D.C. & London, & Unesco, Paris, 1986, p. 31.

The attitudes to architecture in traditional cultures are likely to be very different from those that obtain among the signatories of the Venice Charter. Conservation of traditional quarters in the cities is likely to be most possible where an urban culture already exists, as in many Islamic countries. But in countries where small settlements have become inflated with the immigration of people from rural areas, old buildings may be regarded with contempt. Belatedly, the loss of vernacular buildings of Islamic heritage encouraged by business and land interests, is now regarded with alarm, and the restoration of old urban housing has been initiated. But as the culture changes, the vernacular inheritance may seem increasingly inappropriate, and decades may elapse before its qualities are acknowledged.<sup>110</sup>

It may be that in some cases the open air museum may be the best answer to the dilemma. This is especially true in developing countries and the 'fourth world' -- which have tribal or peasant societies -- where traditional building forms are rapidly disappearing. There are some pitfalls to be found in this kind of artificially created environment : simulated materials, incorrect methods of construction, miniaturised or exaggerated scale, conservation of the "best" or most unusual examples at the expense of the once commonplace, sanitising and making artificial conditions in the interests of tourism, are all the familiar distortions of the reality of the architecture which bring the concept of "conservation" into question.<sup>111</sup>

Lack of political will, popular resistance, legal and administrative weaknesses, lack of inventory as a prime conservation tool and staff shortages hinder conservation in developing countries.<sup>112</sup> The important thing is to conserve the idea, the thinking behind the structure, its form, and the method of construction. Many traditional building types such as the traditional houses in Gezira in Sudan, Thika in Kenya, Demra in Bangladesh, and Old Cairo in Egypt, or the traditional tents of many Arab countries cannot be replicated in large numbers. The conservation of their design methods, sometimes transformed, however, will allow their use in modern versions. In this sense, conservation is involvement in traditional thinking which lay behind the buildings and their adaptation for modern uses due to changing social and economic needs.<sup>113</sup> In the case of tent structures, the means by which the tent is made are more important than the material. It is an idea that is conserved, and reborn each time a new home is made. Conservation becomes the vehicle through which skills are retained within a group. In the course of time, as traditions diverge from

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<sup>110</sup> Oliver, in Zetter, ed., op.cit., pp. 8-9.

<sup>111</sup> *ibid.*, pp. 12-3.

<sup>112</sup> Rodgers, in Zetter, ed., op.cit., p. 16.

<sup>113</sup> Miles Danby, 'The Conservation of Traditional Building Methods', in Zetter, ed., op.cit., p

group to group, they are recognised as a sign of tribal identity, and may have become one of the sources for a people's self-respect, which in turn strengthens the tendency towards conservation.<sup>114</sup>

### 1.4.3 Indonesian Experience

Architectural conservation activities in Indonesia have begun fairly recently. The demolition of many colonial buildings in the centres of large Indonesian cities in the 1970's, for instance, demonstrates the lack concern for the architectural heritage at that time. The dereliction of traditional urban structures and architecture in historic towns and the demolition of Chinese buildings in economically strategic locations are also notable examples. A number of justifications were given for these demolitions. In the case of colonial buildings, the need to erase physical traces of the dark side of colonial history was cited; in the case of vernacular urban houses, the reasons for demolition were the high maintenance cost of traditional urban housing stock, and its unsuitability for contemporary life. In the case of Chinese shophouses, the motive was the need to clear urban areas for redevelopment to meet high land values. Ethnic prejudice may have exercised some influence.

Economic and commercial motivations are prevailing factors which place heritage resources at risk. The construction of medium and high-rise contemporary buildings has been viewed as a way to meet the high land cost in city centres. The destruction of old and deteriorating buildings has been considered as a means to cut high maintenance cost. The common view of contemporary urban development as internationally progressive has justified these actions.

Responsibility for heritage conservation activities lies with city managers, private businesses, owners of heritage properties, professionals in planning and design, and voluntary or non-profit organisations and individuals.<sup>115</sup> In fact, the role played by Indonesian city managers as the power-brokers and the entrepreneurs as the profit-seekers has been most influential in altering historic environments of city centres. The damage to areas and structures of cultural heritage value in the strategic areas within the city has apparently been a result of irresponsible actions carried out by entrepreneurs with the permission of local government officials.<sup>116</sup>

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<sup>114</sup> Peter Andrews, 'The Conservation of Ideas in Architecture among Nomads', in Zetter, ed., op.cit., pp. 68-9.

<sup>115</sup> Wisnu Murti Arjo, *Safeguarding Urban Historic Traces*, a paper presented at Seminar on Dissemination of Urban Conservation, Jakarta, December 1992, pp. 2-3.

<sup>116</sup> Eko Budiharjo, *Conservation of Little Netherlands in Semarang*, a paper presented at Seminar & Workshop on Architectural Heritage in the Context of Urban Development, Semarang, November 1992, p. 4.



In the course of the 1980's, a number of individual planners and architects have highlighted the importance of protecting the national and local cultural heritage. The establishment of the Indonesian National Heritage Trust (*Yayasan Pelestari Budaya Bangsa*) in Jakarta in 1989 and its involvement in conservation activities was the starting point for a more sound promotion of heritage conservation activities.

However, the demolition and neglect of historic buildings continues. The main factor appears to be that heritage conservation has been perceived as a luxury activity that demands large funds, high expertise and long time spans. Funding priority has been given to contemporary urban development and economic improvement, particularly in the most strategic areas in the cities, so that resources for heritage conservation have been lacking. Both city managers and the general public, moreover, remain fascinated with modern building styles as a sign of progress.

### The State of Conservation Theory

Cultural heritage protection in Indonesia was previously associated with the protection of movable cultural artifacts and monuments. Conservation, moreover, was perceived as static protection through returning artifacts and monuments to their original state. Such understanding was apparently based on the Monument Ordinance established by the Dutch in 1931 and 1934 (*Monumenten Ordonnantie 1931 : MO '31*).<sup>117</sup> After the Law on Environment Management was issued in 1982, conservation activities then focussed more on the protection of natural environment than the built environment.<sup>118</sup>

Interest in the protection of urban environmental heritage emerged only in the mid-1980's. This interest developed among a few researchers, particularly in the field of urban planning. Modern urban archaeology initiated in the 1970's has been a relatively new discipline in Indonesia.<sup>119</sup> It emphasises both the examination of the historical development of urban physical elements and the understanding of a town as a unit of complex social organisation, rather than focussing on the reconstruction of physical elements.

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<sup>117</sup> *Monumenten Ordonnantie (MO) Staatblad van Nederlandsch Indie 238/1931 & 515/1934* (Monument Ordinance established by the Dutch government in 13 June 1931).

<sup>118</sup> *UU no. 4/1982 : Ketentuan Pokok Pengelolaan Lingkungan Hidup* (Law no. 4/1982 on Environment Management).

<sup>119</sup> Nurhadi, *Town Archaeology and Conservation of Historic Town : a case of Islamic-Mataram towns*, a paper presented at Seminar on Development and Conservation of Historic Town held by Yogyakarta Heritage Trust, Yogyakarta, November 1992, p. 1.

An awareness of a wider perspective of the built environment as worthy of conservation has emerged in the late 1980's. The objectives of the Indonesian National Heritage Trust, which is concerned with historic areas and landmarks, and cultural and natural aspects of the environment, have confirmed such recognition.<sup>120</sup> The scope of heritage conservation is now viewed as the protection of both grand monuments and ordinary vernacular buildings, and both single buildings or groups of buildings and entire urban structures. The approach is considered to include total preservation, rehabilitation, and contextual design of new buildings in historic areas.<sup>121</sup>

### **The State of Conservation Methodology**

The shortage of financial resources has enforced the need for a self-help approach rather than totally relying on limited government funding. Such an approach requires direct initiatives of property owners, participation of local communities, and involvement of non-governmental organisations. Supporting legislation and regulation from the government, financial assistance from private institutions, and educational and technical assistance from professional experts, furthermore, are essential.<sup>122</sup>

Legislation regarding architectural heritage protection has been limited and lacking in detail. More specific regulations need to be established, as well as advisory and supervisory institutions and personnel. Professional and educational bodies of architects and planners have not initiated the establishment of such regulations.

Up until 31 March 1992, cultural heritage protection was based on the Monument Ordinance of 1931, the focus of which is on the protection of monuments and artifacts. These include:

- (1) immovable or movable human-made properties, in parts or groups or their remnants, which are mainly more than 50 years old of age or demonstrate a style developed at least 50 years ago, and which are considered of great importance for pre-history, history and art;
- (2) objects considered of great importance from the point of view of palaeoanthropology; and
- (3) sites with enough indication of containing such properties.

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<sup>120</sup> *Indonesian National Heritage Trust*, a booklet, Indonesian National Heritage Trust, Jakarta, 1992.

<sup>121</sup> This is shown in the categorisation of awards given by Yogyakarta Heritage Trust in 1992. See : *Rontal*, Yogyakarta Heritage Trust Newsletter, November 1992, p. 1.

<sup>122</sup> Eko Budihardjo, 'Conservation of Environment and Town Identity', *Kompas*, 13 August 1984, p. 4.

The Office of Archaeological Service established the Central Monument Register and maintained the registered cultural heritage. The implementation of MO '31 was conducted by the Office of Archaeological Service together with the Directorate of Education and Religious Affairs and the Governor General.<sup>123</sup>

Other laws and regulations related to cultural heritage protection have since been established based on the National Constitution (*Undang-Undang Dasar 1945 : UUD '45*) and MO '31. They are mostly concerned with national properties in terms of archaeological artifacts or natural environments, such as:

- (1) Instruction of Minister of Internal Affairs no.65/1/7/1960: the violation of MO '31;
- (2) Decree of the President no.372/1962 : the coordination and supervision of police service and special police service for heritage protection;
- (3) Decree of Minister of Trade, Minister of Finance, and Governor of Central Bank no.27/A/Kpb/II/1970-no.Keu62/MK/III/2/1970-no.KEP3/GBI/1970 : the removal of cultural properties overseas related to devisa legislation;
- (4) Instruction of Minister of Education and Culture no.6/M/1972 : the protection of cultural heritage properties;
- (5) Instruction of Minister of Education and Culture no.01/A.I/1973 : coordination between the Head of Departement of Education and Culture and the National Police in the safeguarding and protection of Indonesian national cultural heritage;
- (6) Instruction of the Comander of Security, Peace and Order (Pangkopkamtib) no.INS-002/KOPKAM/I/1973 : the safeguarding of national cultural heritage;
- (7) Decree of the Head of National Police no.JUKLAK/LITO1/IV/1973 : the safeguarding of national cultural heritage;
- (8) Memorandum of the State Ministry for Control of Machinery of State/Vice Head of National Development Planning Board to the Minister of Transportation and Minister of Education and Culture, 17 November 1973 : Cultural Development Tourism Promotion Project;
- (9) Decree of the Head of National Police/Special Coordination Board no.Polsus/15/I/1976 : the safeguarding of national cultural heritage properties;
- (10) Decree of Minister of Education and Culture no.0222e/1980 : structural and functional guidelines for the Directorate of Cultural Heritage Protection and Development in undertaking cultural heritage conservation;
- (11) Letter of Minister of Internal Affairs no.432/3855/PUOD/1982 to the Governors

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<sup>123</sup> Office of Archaeological Service, Directorate General of Culture, Department of Education and Culture, *Compilation of Laws and Regulations on the Protection of National Cultural Heritage*, Prambanan, Central Java, 1980, pp. 18-23.

- and Heads of Sub-province/Mayors in Indonesia : architectural development and re-habilitation of historic buildings in all Indonesian regions;
- (12) Article 14 Law no.4/1982 on Environment Management : statement that cultural heritage is a component of the environment that must be protected; and
- (13) Article 2 Regulation no.PP29/1986 : environment impact assessment, assertion of the importance and compulsory preparation of an environmental impact analysis for all activities which indicate impact on cultural heritage properties.<sup>124</sup>

The Law on Cultural Heritage Protection, issued on 31 March 1992 by the Directorate of Cultural Heritage Protection and Development, Directorate General of Culture, Department of Education and Culture still emphasises cultural heritage artifacts as inanimate objects, rather than the wider scope of the built environment as a living heritage.<sup>125</sup> It also gives an impression of a step backward compared to the MO '31. The Ordinance clearly mentions the advisory and supervisory personnel or institutions, whereas the term "the government" mentioned in the Law is a loose term.<sup>126</sup> The Law appears to have been prepared by archaeologists without the involvement of planners and architects. Even though the scope comprises sites and locations, it does not address the dynamic protection of a wider range of cultural heritage areas, involving socio-economic and commercial issues.

### The State of Architectural Conservation Today

The recent establishment of heritage trusts and the case studies presented in the seminars held by these organisations reflect the state of architectural conservation in Indonesia today. The establishment of the Jakarta-based Indonesian National Heritage Trust in 1989 marked the emergence of the cultural heritage conservation movement in Indonesia. The Trust participated in a meeting of non-governmental organisations of ASEAN countries held in October 1991, in which the establishment of local Indonesian trusts at the regional level were proposed. The Jakarta Heritage Trust was then established following the proposal.

Both the Indonesian National Heritage Trust and the Jakarta Heritage Trust sent representatives to a meeting of non-government organizations held in San Fransisco in

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<sup>124</sup> Indonesian Institute of Architects in Yogyakarta and Town Conservation Group, *Senisono : Culture, Urban Conservation and Community Participation in Yogyakarta Town Development*, Book 2, 1991, pp. L3-L4; Office of Archeological Service, 1980, op.cit., pp. 24-53.

<sup>125</sup> Directorate of Cultural Heritage Protection and Development, Directorate General of Culture, Department of Education and Culture, *UU no. 5/1992 : Undang-Undang tentang Benda Cagar Budaya*, Jakarta, 31 March 1992. The term *benda* literally means 'inanimate object'.

<sup>126</sup> Eko Budihardjo, *Mendaur-ulang Warisan Budaya* (Recycling Cultural Heritage), paper presented at Seminar on Dissemination of Urban Conservation, Jakarta, December 1992, p. 3.

November 1992, on the 25th anniversary of the National Historic Preservation Act of the United States. This Indonesian delegation included representatives of the capitals towns of provinces of Java, which are Bandung, Semarang, Yogyakarta and Surabaya. The ten-member team was sponsored by the United States Information Service (USIS). This "Group 10" then made a commitment to foster conservation activities in their home towns and to establish local organisations. This was the basis of the establishment of Bandung Heritage Trust in Bandung, *Yayasan Jatidiri* (Regional Identity Foundation) in Semarang, Yogyakarta Heritage Trust in Yogyakarta, and Surabaya Heritage Trust in Surabaya.

In Yogyakarta, other heritage organisations were subsequently established in addition to the Trust, such as Yogyakarta Heritage Society and Yogyakarta Student Heritage Society. The Javanese Institute (*Lembaga Javanologi*) and the *Honggondento* Foundation, both of which are Yogyakarta-based organisations concerned with the conservation of Javanese culture, have since expanded their concerns to include the physical aspect of cultural heritage conservation.

These trusts have similar objectives and programmes. The objectives include:

- (1) to generate, support and conduct heritage conservation of local built environment of cultural significance, in order to maintain historical continuity and local identity; and
- (2) to generate both public and policy makers' interest in and care for the protection of built environment of cultural significance, in order to establish policy and encourage participation worthy of culturally-oriented development.

The programmes include:

- (1) undertaking inventory and documentation of objects, buildings, sites, districts and areas of cultural significance;
- (2) carrying out research, seminars, discussions, projects, exhibitions, training and information dissemination for the public;
- (3) participating in the process of policy making as a partner of the government;
- (4) initiating and supporting cultural heritage conservation activities;
- (5) collecting, developing and distributing documentation and information regarding cultural heritage conservation;
- (6) fostering relations with other relevant organizations and agencies in Indonesia and abroad; and

- (7) publishing and distributing information and ideas through various media to reach a wide range of the public.<sup>127</sup>

Following the San Francisco meeting, American conservationists visited Indonesia in November 1992. Indonesian national and regional heritage trusts, in cooperation with this American delegation, conducted a series of meetings on heritage conservation and site visits to several cities of Java. Each city organised a seminar on local conservation cases, while the American experts served as resource persons.<sup>128</sup> The tour started in Jakarta, and subsequently visited Bandung, Semarang, Surabaya and Yogyakarta. The town of Kudus was not included in this cooperative Indonesian-American project. Details of city seminars are given below.

### **Jakarta**

A case study on the conservation of Luar Batang urban heritage in Old Batavia, the old town of Jakarta, and a comparative study between Trowulan, the archaeological sites of the capital of Majapahit, and Cakranegara, a Balinese village, were presented in the seminar titled 'Integrated Preservation and Conservation for Historic Buildings and Sites'. A site visit to Old Batavia quarter followed the seminar. This historic quarter is the most important part of a conservation project called Jakarta Retraced, proposed in September 1992.<sup>129</sup> The project, which was initiated by Jakarta Capital City Government in collaboration with Indonesian National Heritage Trust and supported by the Association of Jakarta Indigenous Community, was intended to trace the historical development of Jakarta from a small coastal settlement called Jayakarta in the sixteenth century. The proposed conservation includes reconstruction of Jayakarta Heritage Park, renewal of Luar Batang quarter, rezoning of Bugis fishing settlement, construction of open spaces for pedestrians, vendor stalls and parking, renovation of al-Aidrus Mosque, and preservation of the Fish Market, Fatahillah monument and Sultan Agung statue.

### **Semarang**

Cases from Semarang and Surakarta were presented in the seminar titled 'Architectural Heritage in the Context of Urban Development'. First, attempts to save and re-

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<sup>127</sup> Interview with Mr. Bugie Kusumohartono, the general secretary of Yogyakarta Heritage Trust, Yogyakarta, 9 January 1993; also see : *Indonesian National Heritage Trust*, a booklet, Jakarta, 1992.

<sup>128</sup> These American experts were William J. Murtagh, Patricia H. Gay and John D. Poppelier.

<sup>129</sup> Jakarta Capital City Government and Indonesian National Heritage Trust, *Jakarta Retraced*, a booklet presented in the seminar on Management of Coastal Cities in Support of Sustainable Development, Jakarta, September 1992.

vitalize the earliest historic district of Semarang, an area surrounding Immanuel Church in the old city centre, nicknamed "Little Netherlands", was described. One hundred-and-one buildings, more than half the buildings in the district, are historic buildings of the eighteenth-century Dutch colonial period considered as having cultural significance and worthy of conservation. This identification was based on a series of studies carried out by the Faculty of Engineering of Diponegoro University since 1988. In 1992, the Mayor of Semarang ordered that all identified buildings should be safeguarded against alterations without formal permission from local government.<sup>130</sup>

Second, attempts to conserve the Surakarta royal palace, a residence of the Surakarta royal family and one of the active Javanese cultural centres, were described. The palace has great potential as a major tourist attraction, because it contains traditional cultural activities and rich historic artifacts. Efforts to preserve it have been strengthened by the issue of Presidential Decree no. 23/1988 which stipulates the Surakarta palace as a conservation area. The Royal Management Board, which is in charge of the management of conservation research and implementation, was established in 1989 based on the decree. Guidelines for the revitalisation of an area of about thirty hectares were proposed. The guidelines, which enable both government and private agencies to properly participate in the revitalisation process, have three objectives:

- (1) identification of programmes, priorities, and strategies for revitalization, including physical development;
- (2) establishment of mechanisms for tourist development, including guidelines for promotion, operation and maintenance, including budget estimation; and
- (3) development of environmental impact assessment management.<sup>131</sup>

## **Yogyakarta**

Attempts have been made to conserve two historic areas. As in the case of Surakarta, Yogyakarta royal palace complex has been the subject of conservation activities.<sup>132</sup> The area includes urban quarters and significant architectural elements inside the fortress of the complex. The other historic area identified for conservation is the

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<sup>130</sup> The study also recommends the conservation of two other districts of Semarang : areas in one of the city centre, surrounding historic Young Monument, and on the upper hill of Semarang, surrounding Elizabeth Hospital. See : Budiharjo, *Conservation of Little Netherlands in Semarang*, op.cit., p. 4.

<sup>131</sup> Rontal, op.cit., p. 2; also : G. R. Aj. Koes Moertijah, *The Potential and Existence of Surakarta Royal Palace : its architecture, its meaning, and its problems*, a paper presented at Seminar on Cultural Heritage in the Context of Urban Development, Semarang, November 1992, pp. 1-15.

<sup>132</sup> Both Yogyakarta and Surakarta were capitals of Islamic Mataram court after it was divided into these two courts in 1757.

town of Kota Gede, the old capital of Mataram court, located about 7 km to the south-east of Yogyakarta's city centre. Kota Gede is one of the few remaining intact sixteenth-century towns of Java. Its architecture demonstrates the amalgamation of indigenous Javanese, Hinduistic and Islamic cultures.<sup>133</sup> Conservation action has recently been carried out in Kota Gede, starting with selected traditional timber houses.<sup>134</sup>

Interest in urban conservation has greatly increased in recent years, although international and national attention has yet to extend to Kudus. The growing concern for conservation, and the recognised need for Indonesian conservation strategies makes the present study a timely one.

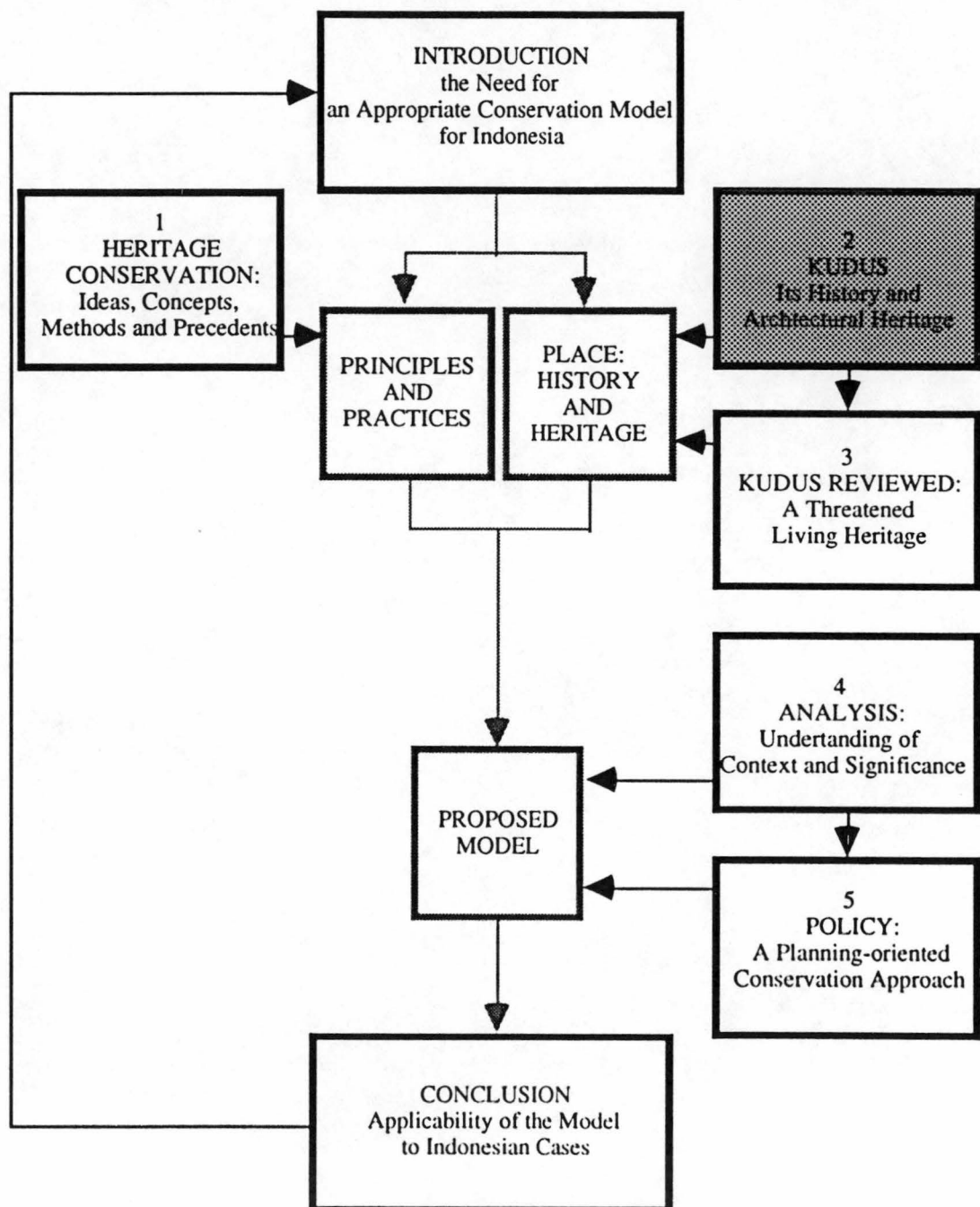
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<sup>133</sup> *Rontal*, op.cit., p. 3.

<sup>134</sup> Interview with Mr. L. Indartoro, staff of the Department of Architecture, Gadjah Mada University and an executive member of Yogyakarta Heritage Trust, Yogyakarta, 11 January 1993.



**Safeguarding a Living Heritage:**  
**A Model for the Architectural Conservation of an Historic Islamic District of Kudus,**  
**Indonesia**



# 2

## KUDUS :

### Its History and Architectural Heritage

'A city is a novel, a legal document, an essay on history and of thought, and a poem ... it is also a sociological document and an architectural ensemble ...'  
His Highness the Aga Khan, *Reading the Contemporary African City*,  
1982.<sup>46</sup>

The town of Kudus is situated between Mount Muria to the north and swampy areas to the south, about fifty kilometres east-northeast of Semarang, the capital of Central Java Province. The mountain rises to a height of 1.602 meters above sea level. The central part of the town and its immediate vicinity is located on flat land about 50 to 55 metres above sea level. Much of the land to the south is even lower, so that the southern part of the town often floods during the wet season.

Kudus has been notable as a centre of political and religious power since the sixteenth century. The early development of Kudus, however, is rarely mentioned in foreign sources, either Portuguese or Dutch.<sup>47</sup> These sources mention other sixteenth-century northern coastal towns of Java, but not Kudus. This omission may have been because Kudus was not located on the seaborne trade route at the time.<sup>48</sup> Research on early Kudus, therefore, must rely on local sources, such as chronicles, oral history, and physical evidence. Unfortunately, local chronicles emphasise social, political, and religious events related to Sunan Kudus rather than to the commu-

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<sup>46</sup> His Highness the Aga Khan, 'Opening Remarks', in *Reading the Contemporary African City*, proceedings of Seminar Seven held in Dakar, Senegal in 1982, The Aga Khan Awards, 1983, p.xv.

<sup>47</sup> Research Team of the Department of History Faculty of Letters Gadjah Mada University, in collaboration with Kudus Anniversary Team, *Hari Judi Kudus (Kudus Anniversary)*, Kudus, 1989-1990, pp. 2-3.

<sup>48</sup> In the fifteenth and sixteenth centuries, Demak, the first Islamic court of Java, gained its power and prosperity, with Jepara as its seaport, Jepara and Kudus regions as rice suppliers, and Pati region as salt supplier. In 1540 Demak was at the height of its power, but by 1546 it was defeated by Jepara. See : B. Schrieke, *Indonesian Sociological Studies, Selected Writings of B.Schrieke Part One*, W. van Hoeve, the Hague, 1966, p. 80.

nity, while inscriptions in historic buildings provide only a few details about the early settlement. Oral history revealed by respected local elders and community leaders may therefore be the richest source of information about historic Kudus. The information, however, is often mixed with legend, so that exact historical development is still uncertain.

## 2.1 An Historical Overview

### 2.1.1 Historical Summary

The establishment of Kudus town in 1549 is attributed to Sunan Kudus, one of the the Islamic saints who spread Islam in Java (*walisanga*).<sup>49</sup> He was a military commander of Demak, the first Islamic court of Java. He attacked and defeated Majapahit, a Hinduistic court of inland east Java, in 1527, and conquered Pajang, a Hinduistic court of inland central Java, perhaps in the 1530's.<sup>50</sup> Sunan Kudus was also a former fifth religious leader (*imam*) in the service of Demak Mosque.

Even though the town was established in the mid-sixteenth century, an Islamic settlement appears to have existed in the fifteenth century in the form of a small agricultural community.<sup>51</sup> Kyai Telingsing, or originally Tee Ling Sing, a Chinese Islamic preacher who may have come from Yunnan, is believed to have contributed to the development of the earliest Islamic community of Kudus.<sup>52</sup> He is believed to have settled in the area before the arrival of Sunan Kudus, possibly a generation earlier. He is also believed to have spread his expertise as a carver. Local oral history suggests that he was accompanied by Sun Ging, another Chinese carver. No histori-

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<sup>49</sup> The holy men believed to have spread Islam in Java between the fifteenth and seventeenth centuries are called the *walisanga*. The term *wali* is Arabic meaning 'saint', while *sanga* is Javanese meaning 'nine'. The title *sunan* is Javanese, which may derive from *suhun*, meaning 'to do honour to' and becomes 'honoured' in its passive form. The names and relationships among the nine saints differ in various texts, yet some manuscripts accept the convention that there were nine, while others list ten. Those widely found in the manuscripts comprise : Sunan Ngampel Denta, Sunan Kudus, Sunan Muria, Sunan Bonang, Sunan Giri, Sunan Kalijaga, Sunan Siti Jenar, Sunan Gunung Jati, and Sunan Walilanang, while a tenth often found is Sunan Bayat. See : M.C. Ricklefs, *A History of Modern Indonesia c.1300 to the present*, Macmillan Press, London & Basingstoke, 1981, p. 9; James J. Fox, 'Ziarah visits to the tombs of the Wali, the founders of Islam on Java', ed., M.C. Ricklefs, *Islam in the Indonesian Social Context*, Annual Indonesian Lectures Series no.15, Centre of Southeast Asian Studies, Monash University, Clayton-Vic, 1991, pp. 22-4; Solichin Salam, *Kudus Purbakala dalam Perjuangan Islam* (Historic Kudus in the Struggle of Islam), Menara Kudus, Kudus, 1977, p. 17; Syafwandi, *Menara Mesjid Kudus dalam Tinjauan Sejarah dan Arsitektur* (the Minaret of Kudus Mosque from Historical and Architectural Viewpoints), Bulan Bintang, Jakarta, 1985, pp. 24-5.

<sup>50</sup> Ricklefs, 1981, op.cit., p. 36.

<sup>51</sup> Refer to the inscription found in Langgardalem Mosque that states the date of 863 H or 1458 AD.

<sup>52</sup> Lance Castles, *Religion, Politics, and Economic Behavior in Java : the Kudus Cigarette Industry*, Cultural Report Series no.15, Southeast Asia Studies, Yale University, New Haven, Detroit, 1967, p. 44.

cal evidence, however, mentions the name of Sun Ging. Some suggest that it may have been the name of the carving style brought by Kyai Telingsing.<sup>53</sup>

Kudus fell under Mataram authority in the early seventeenth century, during the rule of Panembahan Krapyak, the son of Panembahan Senopati, founder of Mataram.<sup>54</sup> In 1602 the king's half brother Pangeran Puger, who had been sent as a regent to rule over Demak, arose in rebellion, but was defeated by about 1605. Sadjarah Dalem, a Mataram chronicle<sup>55</sup>, suggests that Kudus was then firmly under Mataram control by stating that Pangeran Puger was sent to live as a religious student (*santri*) in Kudus.<sup>56</sup> The chronicles also mention that in 1613 Kudus and Jepara were ruled by regents from Mataram, though the administrative structure of Kudus after 1622 is unknown.<sup>57</sup>

Kudus was under Dutch administration in the late seventeenth century, although the Dutch did not firmly govern the region. A list of the Dutch East-India Company states that Kudus was one of the rice exporter regions under the Mataram court submitted to the Company in 1678<sup>58</sup>, while other coastal regencies joined in the years from 1743-1746.<sup>59</sup> Dating from 1709, Kudus was under a Dutch administrator who had a level of *wedana*.<sup>60</sup>

In the late eighteenth century, however, the region was under direct Dutch rule, at least from the time of the first regent appointed by the Dutch. This first regent was K. R. A. A. Padmonegoro, a son-in-law of Paku Buwono III who ruled Mataram in 1749-1788.<sup>61</sup> Until the Japanese occupation in 1943, most of the regents belonged to a single family.<sup>62</sup> After the proclamation of independence in 1945, the political situation in Kudus fluctuated consistent with the general political situation of Indonesia.

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<sup>53</sup> H. J. de Graaf & Th. G. Th. Pigeaud, *Kerajaan-kerajaan Islam di Jawa, peralihan dari kekuasaan Majapahit ke Mataram*, original title *De Eerste Moslimse Voestendommen op Java, Studien over de Staatkundige Geschiedenis van de 15 de en 16 de Eeuw*, KITLV, Leiden, 1974, trans. Grafiti Pers, Jakarta, 1989, p. 108.

<sup>54</sup> Mataram court was established by Senopati in 1586.

<sup>55</sup> Sadjarah Dalem is a chronicle containing the structure and realms of the Mataram dynasty, prepared in Surakarta in the late nineteenth century, using dynasties of earlier courts as a source of reference. See : Graaf & Pigeaud, 1989, op.cit., p. 16.

<sup>56</sup> Ricklefs, 1981, op.cit., p. 39; Graaf & Pigeaud, 1989, op.cit., p. 122.

<sup>57</sup> Schrieke, 1957, op.cit., pp. 190-2.

<sup>58</sup> *ibid.*, p. 156.

<sup>59</sup> *ibid.*, p. 160-2.

<sup>60</sup> Schrieke, 1957, op.cit., pp. 190-2. The highest level of Dutch colonial administrators, is Governor General, followed by Governor, Resident, *Wedana*, and Regent.

<sup>61</sup> Castles, op.cit., p. 44.

<sup>62</sup> Castles, op.cit., p.110; and Solichin Salam, 1977, op.cit., p. 70.

## 2.1.2 History of Urban Form

The town of Kudus was one of the most important towns of Java in the sixteenth century; it was the seat of Sunan Kudus, one the *walisanga*.

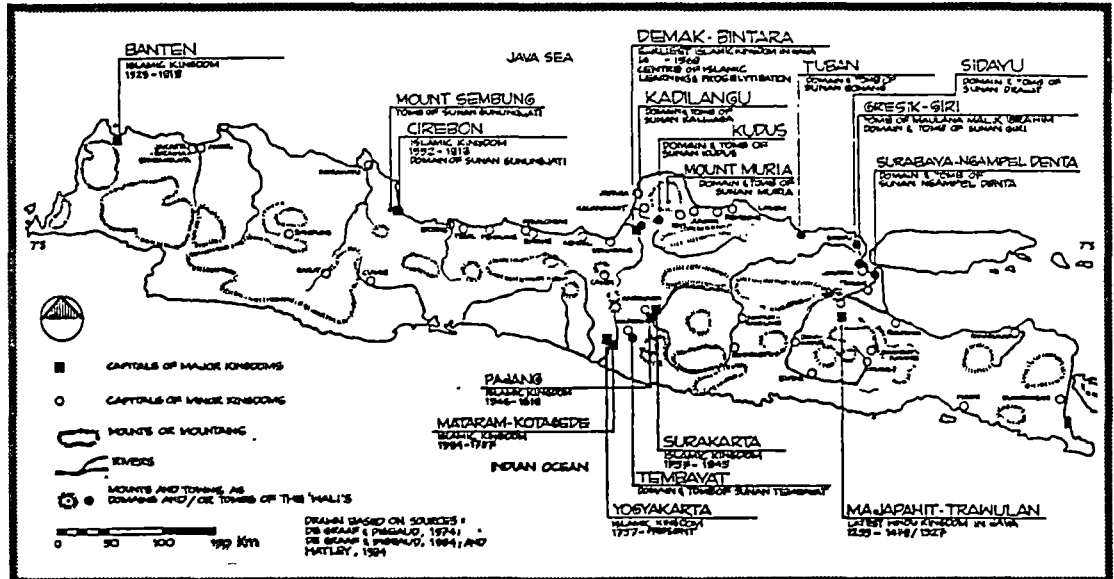


Fig. 2.1

Map of Java in about the fifteenth and sixteenth centuries, showing the locations of the seats of the nine saints, major courts and early settlements. Drawing based on : Graaf & Pigeaud, 1984; Hatley, 1984; and Graaf & Pigeaud, 1989.

The area where Kudus town is located had apparently been a holy place or a place of a pre-Islamic religious community before the coming of Islam.<sup>63</sup> Its former name was Tajug, which literally means a pyramidal-roofed structure usually used for sheltering the tomb of an important person.<sup>64</sup> As the Javanese consider an important person as having supernatural power, *tajug* is considered to be a holy place possessing supernatural qualities. The later choice of the name *kudus*, originating from the Arabic *quds* which means 'holy', moreover, suggests its sacredness.

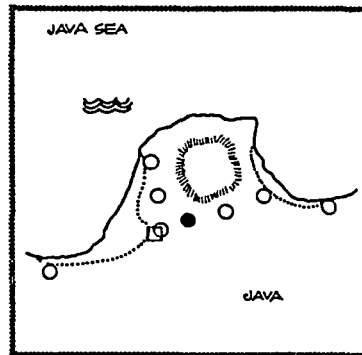
### Kudus Region : geographical situation

An hypothesis suggests that, until the early seventeenth century, the region of Kudus may have been located on Mount Muria island or peninsula, separated from main land Java by a canal. The canal may have played an important role as a part of the trading route along the north coast of Java. According to this hypothesis, the gradual

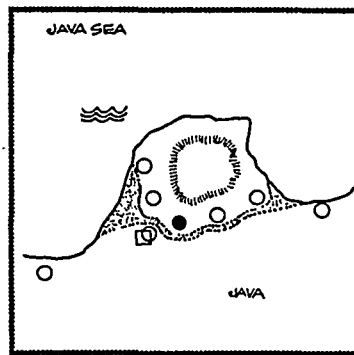
<sup>63</sup> Tjandrasasmita suggests that in many other places in Indonesia mosques are built on sites which previously have special meaning. See : Uka Tjandrasasmita, 'Masjid-masjid di Indonesia' (Mosques in Indonesia), eds. Joop Ave, et al., *Nafas Islam Kebudayaan Indonesia*, Ministry of Tourism, Post and Telecommunication, Jakarta, 1991, p. 66.

<sup>64</sup> Graaf & Pigeaud, 1989, pp. 115-7.

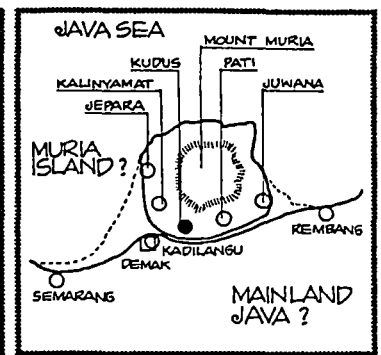
build up of silt deposits in the course of about five centuries resulted in today's flood-prone areas along Juwana and Serang rivers.<sup>65</sup>



**Fig. 2.2.a**  
Hypothetical coastline in the fifteenth century.  
(Koentjaraningrat, 1985)



**Fig. 2.2.b**  
Hypothetical shallow canal in the fifteenth century.  
(Graaf & Pigeaud, 1989)



**Fig. 2.2.c**  
Hypothetical geographical situation of Kudus region in the fifteenth century ?

The town is geographically situated according to the Javanese concept of town (*kutho*) and state (*negoro* or *nagari*). In this concept a town is situated next to a river or between two rivers, surrounded by rich agricultural fields, turning its back on a mountain.<sup>66</sup>

In the fifteenth century and earlier, roads were insignificant, because communication between towns and villages was by water. The use of rivers and sea as the most efficient means of communication and transportation had already been practised centuries before and during the growth of Islamic towns.<sup>67</sup>

### Pre-Islamic Kudus : early settlement

The early settlement of Kudus was apparently linear in pattern, occupying an area along an old road running east-west, located about 18 kilometres to the south of Mount Muria and next to the west side of Gelis River.<sup>68</sup> The road apparently con-

<sup>65</sup> Koentjaraningrat, op.cit., p. 49 & 91; Graaf & Pigeaud, 1989, op.cit., p. 37.

<sup>66</sup> In Javanese chronicles and oral history, a town (*kutho*) means a centre of political administration, in a form of fortified dwelling for the royal family, the aristocrats and royal servants. In a wider meaning, a town includes a market place as a centre of economic activities and gathering place for transacting goods, information and other services. Both political and economic centres constitute the central business district of early Javanese towns. A state (*negoro* or *nagari*) denotes a wider living area, comprising both political and economic centres, and the hinterland area for residential and agricultural uses. See : Nurhadi, *Town Archaeology and Conservation of Historic Towns : a Case of Islamic Mataram Towns*, paper presented at Seminar on Development and Conservation of Historic Towns, held by Yogyakarta Heritage Trust, Yogyakarta, November 1992, p. 1-2.

<sup>67</sup> Tjandrasasmita, 1978, op.cit., pp. 158-9.

<sup>68</sup> The terms 'early settlement' and 'pre-Islamic Kudus' refer to the pre-Islamic settlement which later becomes the basis of the established Islamic town of Kudus. This needs to be clarified because there

nected Kudus with Jepara port town to the west, and with Pati and other eastern coastal regions to the east. Apart from the above hypothesis, the road may have also connected Kudus with the Demak court to the west and the eastern inland regions, where the former Majapahit court was located. The centre and boundaries of this early settlement and the phases and dates of its development, however, are unknown, while existing archaeological artefacts provide insufficient information.<sup>69</sup>

A number of apparently pre-Islamic remnants are found in this area, including Langgar Bubar (the "destroyed mosque"), Menara Kudus (the temple-like "minaret"), and the walled site of today's al-Aqsa and the cemetery of Sunan Kudus. Jepang Mosque, which is situated to the south-east of this area, may also be included, considering that the wall and gate show similarities in material and style. Some historians, however, argue that these sites and structures belong to the early Islamic period, while adopting the architectural style and elements of the previous period in order not to alienate the earlier community.

### **Early Kudus : developing Islamic community**

As noted above, Kudus was not a trading port, but grew from an agricultural settlement of a small Islamic community into a town inhabited by mostly Moslem traders and artisans. Even though the town was established by Sunan Kudus in the mid-sixteenth century, an Islamic settlement appears to have existed in the fifteenth century in the form of a small agricultural community under the influence of Kyai Teling-sing. Kyai Telingsing may have resided in Sunggingan quarter, where his tomb is located, the toponym of which literally means a place of carvers.<sup>70</sup>

The formation of Sunggingan quarter apparently resulted from the practice of a traditional teacher-pupil relationship between Kyai Telingsing and his followers, in which his pupils lived in the area surrounding his residence, forming an economi-

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may have been other settlements of the pre-Islamic period which are outside the context of this study. Van Orsoy de Flines, for instance, suggests that a palace and an established community had possibly existed in the thirteenth or fourteenth century situated about 12 km to the north-east of today's Islamic district. This hypothesis is based on his archeological research, in which a large quantity of pottery and ceramic ware was found. See : E.W. van Orsoy de Flines, *Onderzoek naar en van keramische scherven in de bodem in Noordelijk Midden-Java 1940-42*, Overgedrukt Uit Het Oudheidkundig Verslag 1941-1947, Oudheidkundige Dienst in Indonesie, A. C. Nix, Bandung, pp. 78-81.

<sup>69</sup> The survey and excavation carried out in 1976 by a research team of *Pusat Penelitian Purbakala dan Peninggalan Nasional* (National Research Centre of Archaeology) revealed important archaeological resources of Kudus, but no suggestion was made on the wider issue of urban formation. See : Hasan M. Ambary, et al., *Laporan Survei Kudus, Berita Penelitian Arkeologi 14A* and *Laporan Ekscavasi Kudus, Berita Penelitian Arkeologi 14B*, Pusat Penelitian Purbakala dan Peninggalan Nasional, Jakarta, 1978, c. 1977.

<sup>70</sup> *sungging* means 'to carve', the suffix *an* means 'a place of'.

cally self-sufficient community called *pesantren*.<sup>71</sup> The pupils and followers of Kyai Telingsing possibly learned the art of wood-carving while studying Islamic teachings.

A road leading to the north connected Sunggingan quarter with the east-west main road, and subsequently with the religious complex of the "minaret" (*menara*), and the walled site of al-Aqsa and the cemetery. This north-south road crossed the east-west road, forming a crossroads, on the north-east corner of which was an open space. This space, which has a single banyan tree in the centre and today is known as Mardurekso Square, became a public square, where people gathered and bartered goods.

### **Islamic Kudus : the religious old town**

The town apparently has no physical boundaries, such as fortification walls and moats, like those found in the court towns of Majapahit, Old Mataram, and today's Yogyakarta and Surakarta. This is consistent with the fact that Kudus was originally established through religious power instead of political and military power, so that it did not need physical defenses. Gelis River, as well as early roads and streets may have been the boundaries of the early settlement. Toponyms, or the meaning of the names of places, in addition, provide a valuable source for interpreting non-physical boundaries.

The setting of Kudus town reflects a recognition of the Hinduistic-Javanese urban pattern. Mountains, rivers, and cardinal directions are important natural features. The north and east directions are considered as positive, whereas the south and west are negative. In Balinese and Hinduistic-Javanese world views, the direction of mountain and sunrise is considered as benevolent, while the direction of sea and sunset is nefarious.<sup>72</sup> The important built-up features comprise two crossing roads, a main square, and a number of key buildings which are located both around the square and along the main roads. The square, which is located next to or right on the crossroads, usually contains a pair of banyan trees in the centre, emphasising the north-south axis. Both the square and the key buildings form the town centre. Except for the absence of fortifications, the pattern of Kudus town centre may resemble the Hinduistic-Javanese court centre type, such as that of the Majapahit court. Mosques replaced temples, while the residential complex of Sunan Kudus was likely to have been smaller and humbler than the king's palace. Kudus is simpler in spatial

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<sup>71</sup> *santri* means 'religious pupil', the combination of prefix *pe* and suffix *an* means 'a place of

<sup>72</sup> Yi-Fu Tuan, *Topophilia : a Study of Environmental Perception, Attitudes, and Values*, Prentice-Hall, Englewood Cliffs, New Jersey, 1974, pp. 21-2.



and formal qualities, and smaller in scale. Prapanca, the poet of Majapahit, describes the court capital as follows:

'... Its wall is of red brick, it goes right around and is thick and high. ... On the north is the ceremonial gate, splendid and extraordinary, its doors of iron, adorned with countless designs. On the east, to the side of it, there stands a fine, high tower, its base plastered with white cement. Located to the north, but south of the market, close together there stand rest-houses, long in the extreme and very extraordinary. ... To the south of this is the crossroads, other-worldly in its elegance. The outer courtyard is wide and spacious, its pavilions are arranged on four sides with a hall in the centre. ... in the centre is the tall Saiwa sanctuary. ... the buildings have three storeys with fine carvings on their pinnacles. ... There in the interior, to the south of the outer courtyard and separated by a gateway, the audience-halls are arranged. Fine buildings in rows flank the road to the west; ... On the west, again walled off, to the south of the tower, various open pavilions extend around the sides. Further into the interior the southern audience-hall leads directly into the Second Gate in the inner apartments. Its arrangement is in terraces, each section is separated by a gateway, ... All the buildings have a solidly built foundation, and their pillars, planks, and rafters are without defect. ... There on the north-west and to the west, going round to the Direction of the Death (south), the many rest-houses are crowded with leading officials in charge ... Within the Second Gate its fine courtyard is levelled, wide and very splendid, crowded with buildings and the amazing halls ... On the east is the incomparable building, its construction radiant, high and fully adorned, the place where the king gives audience to those who have come into his presence in the countless halls. ... the halls that serve as their Interior, neatly arranged and splendidly adorned. ... Of all the buildings none lack pillars bearing fine carvings and coloured; and the substructures of red brick are carved in relief, closely fitted and shaped. All around are the products of the potter, serving as the highest point of the roofs of the main buildings. ...' <sup>73</sup>

The construction of al-Aqsa Mosque was the starting point of the development of the Islamic residential quarter Kauman, while this quarter, in turn, became the basis of the development of Kudus town.<sup>74</sup> The toponym *kauman* means the place of an Islamic religious community, usually surrounding a mosque.<sup>75</sup> Trading is the chief livelihood of Kauman communities, in addition to Islamic teaching. No historical information suggests that Chinese Moslems ever lived in the Kauman quarter of Kudus, even though some stories give rise to the assumption that Chinese or Indo-

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<sup>73</sup> Quoted from : Dr. Stuart Robson, *Désawarnana (Depictions of Districts)*, a draft translation of a fourteenth-century Majapahit chronicle *Nagarakertagama*, pp. 5-10.

<sup>74</sup> Ahmad Adaby Darban, *Kampung Kauman, Sebuah Tipologi Kampung Santri di Perkotaan Jawa, Studi Perbandingan Sejarah Pertumbuhan Kampung Kauman Kudus dan Yogyakarta* (Kauman, a Typology of Islamic Quarters in Javanese Towns, a comparative study of the history of *kauman* quarters in Kudus and Yogyakarta), research report, Faculty of Letters Gadjah Mada University, Yogyakarta, 1984, p. 29.

<sup>75</sup> *kaum* means 'religious officials in charge of the mosque', the suffix *an* means 'a place of'.

Chinese Moslem traders and artisans were much in evidence in this business quarter around the mosques of Javanese towns.<sup>76</sup>

Sunan Kudus built al-Aqsa Mosque and incorporated a cemetery for himself and his family at its back yard, the site and the temple-like "minaret" of which may have partly been a pre-Islamic temple complex.<sup>77</sup> The walled compound of al-Aqsa Mosque, the "minaret" and the cemetery, which is today known as Menara Complex, is the most important building in Kudus notable for its preservation of pre-Islamic architectural forms. This complex, which is situated to the north-west of the square, has a hierarchy of spaces, divided by brick walls and connected with several gates and split-gates. These gates and walls form the complex's boundary. The gates have double-leaved decorated wooden doors, and sculptures of monstrous figures were carved on both sides of the steps serving as decorative symbolic guardians. In the time of Jasper's observation in the early 1920's, the complex partly crumbled, and was overgrown with moss and lichen, even though the old town flourished around it.<sup>78</sup>

The materials, construction, architectural style, formal configuration, and spatial organisation of Menara Complex lead to an assumption that they are remnants of pre-Islamic architecture. The mosque and the tomb have multi-layered pointed-roof forms similar to that of the oldest mosque of Java, Demak Mosque, recalling ancient *meru* or mountain palaces and reliefs found on Hindu-Indonesian art and temples.<sup>79</sup> The burnt clay brick material is softer in texture and bigger in size, compared to that of the later period. The absence of mortar, moreover, shows a similarity with buildings of the Hindu era found primarily in East Java and Bali. The style, however, is much simpler in shape, construction, detail, and decoration. Jasper suggests that such simplification may have been partly due to a decline in brick building techniques, or a consequence of Islamic doctrines which emphasise simplicity and prohibit the use of human and animal figures.<sup>80</sup>

The minaret, which was later called Menara Kudus, was an important landmark of the town. Pijper suggests that Menara Kudus is the oldest "minaret" in Java, yet doubts whether it was originally a minaret, considering that it is the only Hinduistic-

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<sup>76</sup> Graaf & Pigeaud, 1984, op.cit., p. 174.

<sup>77</sup> The complex seems to have been built on a sacred site of the previous period.

<sup>78</sup> Jasper, op.cit., pp. 5-7.

<sup>79</sup> The use of pre-Islamic architectural elements proved the wisdom of the Muslim pioneers in couching the new religion in familiar forms. See : Tjandrasmita, 1978, op.cit., p. 152.

<sup>80</sup> J. E. Jasper, 'Het Stadje Koedoes en Zijn Oude Kunst', *Nederlandsch Indie Oud and Nieuw (NION)*, Den Haag, 7e jaargang, May 1922, pp. 9-11.

Javanese structure destined to serve as a minaret.<sup>81</sup> Even though it contains a drum to announce times for praying, Pijper argues that this structure had no connection with the Islamic architecture of the Javanese mosque, but rather a Hinduistic structure corresponding in purpose and style with that of Balinese *kulkul* tower.<sup>82</sup> Tjandrasmita supports the argument by pointing out that some other early Indonesian mosques, such as Demak and Banten mosques, also originally had no minaret.<sup>83</sup>

Syafwandi however argues that Menara Kudus and the entire walled complex is Islamic in origin, built by Sunan Kudus between 1478-1550, in the era of the Demak court.<sup>84</sup> He draws a number of significant conclusions:

- (1) the forms and positions of entry gates allows for no specific ritual or processional entry into to the complex;
- (2) the position of Menara and al-Aqsa mosques are oriented to the *qibla* direction of Mecca, rather than to Mount Muria or to the east, unlike Hinduistic temples;
- (3) the drum on the top floor of the Menara was used for calling the community to prayer; before the introduction of a loudspeaker, the top floor space was used for the *muadzin* in reciting the call to prayer;
- (4) the bricks were specifically fabricated to join without rubbing or burning methods;
- (5) both the void inside the Menara, in which the wooden stair is placed, and the narrow niches on the exterior, are too small for the statue placement common in Hindu temples;
- (6) the medallion and diamond shapes appear to be incomplete versions of Hindu ornaments, but follow Islamic prohibitions of living creatures ;
- (7) inscriptions on the roof structure indicate several renovations and makes it less likely that the Menara was originally a Hindu temple; and
- (8) the two-tiered roof deviates from the Hindu principle of using odd numbers.<sup>85</sup>

As was the case with the formation of Sunggingan quarter, the formation of Kauman quarter resulted from the traditional *pesantren*. Sunan Kudus granted land parcels to his pupils and followers who had started to settle in the vicinity of his residence. They were responsible for the maintenance and enhancement of the religious com-

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<sup>81</sup> Dr. G. F. Pijper, a Dutch scholar, as quoted by Salam, in Salam, 1977, op.cit., pp. 33-4.

<sup>82</sup> Beating drums a few times as signals is an old custom in Indonesia; after the coming of Islam the use of the drum was then adopted in Indonesian mosques, beaten as a signal for praying times, but placed in the hall instead of on a tower.

<sup>83</sup> The minaret of Demak Mosque was added in the early twentieth century, while that of the Banten Mosque was originally an observation tower or a light-house. See : Uka Tjandrasmita, 'Masjid-masjid di Indonesia' (Mosques in Indonesia), eds. Joop Ave, et.al., *Nafas Islam dalam Kebudayaan Indonesia*, Ministry of Tourism, Post and Telecommunication, Jakarta, 1991, p. 57 & 66.

<sup>84</sup> Syafwandi, op.cit., pp. 46 & 78.

<sup>85</sup> *ibid*, pp. 78-82.

plex of al-Aqsa Mosque, in the form of a *waqf* institution, while learning Islamic teachings.<sup>86</sup> The land granted covered primarily the area surrounding al-Aqsa, that is today's Kauman quarter, which then developed to include a larger area, comprising parts of today's Langgardalem, Kerjasan and Damaran quarters.<sup>87</sup>

Al-Aqsa, which was completed in 956 H or 1549 AD, is apparently not the first mosque built in Kudus. Langgardalem Mosque, which is located in Langgardalem quarter was built 91 years earlier; its inscription states the date as 863 H or 1458 AD. Langgar Bubar or the "destroyed mosque", which is located in Demangan quarter, moreover, contains an inscription giving its date as 953 H or 1546 AD.<sup>88</sup> Some historians argue that the Langgar Bubar was not a mosque but a remnant of a temple of the pre-Islamic period. Its size is too small for a mosque which needs adequate space for communal prayers.

Langgardalem Mosque, which is situated at some distance to the north of the square, may have once been the private mosque of the residence of Sunan Kudus. The toponym *langgardalem* literally means a private prayer house of a respected person, or, a private mosque located in the residence of such a person.<sup>89</sup> The mosque, however, apparently was not built by Sunan Kudus, as the inscription shows a date which is almost a century earlier than the one found in the al-Aqsa. Most of its present building elements are not original, due to rehabilitation and reconstruction over time.

The compound of the residence of Sunan Kudus was a key structure of the old town. The remnants, however, cannot be found today, because the site has been replaced by a dense residential quarter : today's Langgardalem quarter.<sup>90</sup> The exact location of this residence is therefore unknown.<sup>91</sup> The compound may have resembled a royal

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<sup>86</sup> *waqf* literally means 'a property donated for religious or community use'; the *waqf* institution is an Islamic religious trust responsible for maintaining the property.

<sup>87</sup> During the Dutch colonial government, this *waqf* community was granted tax exemption, but the area was much reduced to include only today's Kauman, covering an area of about 250 x 250 square metres. Such a tax-free area was called *desa mardeka* or *mardekan* or *perdikan*. (*mardeka* means 'free'). See : Darban, op.cit., p. 33, after his interview with Kyai Tarekhan, a descendant of Sunan Kudus.

<sup>88</sup> Research Team of Department of History Gadjah Mada University, op.cit., p. 6.

<sup>89</sup> *langgar* is a prayer house or a small mosque which is not used for Friday prayer, while *dalem* means a designation or a title for a respected person, also a palace or residence of such a person.

<sup>90</sup> This can be compared to today's Alun-alun residential quarter of Kota Gede, the former capital of Mataram court. This quarter was originally the town's square, as its toponym *alun-alun* suggests.

<sup>91</sup> As noted above, according to its toponym, Langgardalem quarter may have originally been the site of Sunan Kudus' residence, within which his private mosque was located. Graaf & Pigeaud argue that a small mosque called Suranata Mosque can be found in Kudus, in the vicinity of a remnant of an ancient palace, and suggest that this mosque and remnant were the private mosque and the residence of Sunan Kudus. This, according to Graaf & Pigeaud, is similar to other Islamic towns, such as Giri (Gresik), Yogyakarta and Surakarta, each of which has a great mosque as the town mosque and a Suranata mosque as a part of the ruler's residence. The possessing of a Suranata mosque can be seen as a symbol of power, dignity and special privilege. See : Graaf & Pigeaud, 1989 (trans.), op.cit., pp.

palace, consisting of structures and places named after their functions, such as *dalem* -- the main dwelling place, *paseban* -- a waiting hall, *sittinggil* -- an audience hall situated on a higher level, *srimganti* -- a waiting hall, *kaputren* -- women's quarter, and *kaputran* -- men's quarter.

Madurekso Square and Madurekso Mosque, which are situated on the western periphery of the square, are important urban elements of Old Kudus. The square served as a place for public gathering and for barter. The mosque, or its site, may have originally been an audience hall, in which the leader or leaders of the community met the people who gathered in the square. The toponym *madurekso* literally means a place for looking after the harmony of the community, or, a place for solving problems of the community.<sup>92</sup> Even though the present building elements of the mosque are no longer original, the shape, form, and particularly its small scale apparently have not changed.

### **Recognition of the Town by Europeans**

Before 1678, Kudus and the coastal regions of Java had apparently been rarely visited by Europeans, even though Java's north coast had been known to the Portuguese since the time of Tome Pires who left the archipelago in 1515.<sup>93</sup> The Dutch East-India Company became familiar with the coastal regencies and a number of inland regencies in the course of the seventeenth century, when Kudus had been well-known as a centre of Islamic learning among foreign Muslim traders.

Admiral Antonio Hurdt, the Dutch East-India Company superintendent, was one of the earliest European visitors. He conducted an expedition in 1678-1679 during the war which saw the Macassarese and Malay incursions in Java. He admired the minaret of Kudus mosque which was reported as having a pre-Islamic architectural style. A continuity of architectural styles from the pre-Islamic to the early Islamic expressed in the mosque, the cemetery, the split-gates, the walls, and the gates, appears to be consistent with the continuous use of some Javanese traditions as media for teaching Islamic ideas.<sup>94</sup> The report states that 'Kudus was a pleasant town, but laid in ruins, except for a beautiful temple built in Indian style ... of the six thousand male inhabitants only two hundred remain ...'<sup>95</sup>

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79 & 120. However, during my field-research, I was not able to find the location of Kudus' Suranata mosque nor the remnant of the ancient palace. The survey report by Ambary et al. in 1976, op.cit., also does not contain information about these places.

<sup>92</sup> *padu* means 'conflict', *rekso* means 'safeguarding a harmony'.

<sup>93</sup> Schrieke, 1957, op.cit., p. 154.

<sup>94</sup> Graaf & Pigeaud, 1989, op.cit., pp. 115-7.

<sup>95</sup> As quoted in Schrieke, 1957, op.cit., p. 145.

A late-seventeenth-century map, based primarily on the Hurdt expedition, was reproduced by De Jonge. This map describes the early roads of Kudus region, showing that Kudus town is situated on one of the main routes connecting the developing regions of Java in the sixteenth century.

One of the main roads connected the north coast regions of Central Java with the inland regions of East Java. In the Hurdt expedition, the Dutch army advanced from Jepara to Kudus via Kalinyamat, following the Serang River through the Kendeng Mountains, crossing the Solo River, passing the north slope of Mount Lawu, and proceeding to Kadiri.<sup>96</sup> This road may have existed since the period of the Majapahit court, connecting the capital to its north coast estates.

Another road connected the north coast regions of Central Java with the inland regions. A Dutch report states that in about 1618 the Dutchmen transported prisoners from Japara to Mataram by way of Demak and Semarang. This route must have been the normal route connecting the coast with the interior in the Demak period, when Jepara was the principal port on the north coast. As Semarang developed to be the most important coastal town replacing Jepara, it became the point of departure. The road between Semarang and Mataram, therefore, became an important route.<sup>97</sup>

The urban structure of the old town of Kudus is similar to that of other Javanese towns built in the period of the glory of Islam, such as Tuban and Gresik on the north coast of East Java, and Kota Gede in the inland of Central Java, near Yogyakarta. The houses are built very close together, resulting in compact residential areas.

The early houses may have been made of timber, bamboo and thatch, and were then improved as prosperity increased. A few wealthy people may have used clay-brick for foundations, outer walls and fences, and good quality timber for the main columns, beams and door panels of their houses. Timber and bamboo were gradually replaced with good quality teakwood, while thatched roofs were substituted with clay-tiles. In the peak of Kudus prosperity during the nineteenth century, most houses were apparently rebuilt using finer quality materials and a more refined architectural style. Clay-brick was used for the foundation and the raised-floor of houses and other buildings. Good quality teakwood planks and ceramic tiles were used for floor finishing. Good quality teakwood was used as the main material for both the structural and architectural elements of the houses, which were delicately carved. Lime-washed plastered brick was used for outer walls and fences.

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<sup>96</sup> Schrieke, 1957, *op.cit.*, pp. 103-5.

<sup>97</sup> *ibid.*, p. 106.

In the time of Jasper's study, the religious people lived in close proximity in the vicinity of the highly respected Sunan Kudus' cemetery.<sup>98</sup> The wealthy, many of whom had already made a pilgrimage to Mecca, lived along the narrow streets of the old town. The high walls of the houses on both sides of the narrow treeless streets form the boundary of the street. Men gathered and children played on these streets only at night. Domestic life, both religious duties and housekeeping, took place behind the high walls, being well-hidden from strangers, yet not from neighbours. The extended-family system resulted in the carrying out of domestic life in the company of a wide group of relatives. Both men and women were traders. Women sold products in the market nearby, while men travelled to other trading towns.<sup>99</sup>

According to Jasper, various architectural elements and details were used on the solid high walls of the street and in the narrow alleys between houses, such as windows with timber bars, main doors with copper door handles, small doors for servants and lower-ranking people, roof cantilevers with decorated timber consoles, and gates with carved pilasters. The yards were very clean. Both facades and interiors of the houses consisted of carved wooden panels. These panels included relief carving and cutwork, embellished by gold paper. The motives of the carvings showed a strong Hindu influence, consisting primarily of flowers and waving stems originating from a vase figure.<sup>100</sup>

### **Colonial Kudus : the administrative town**

The growth of administrative towns is one of the significant consequences of the Dutch colonial administration in Indonesia. The new town of Kudus was built during the late eighteenth and the early nineteenth centuries, occupying an area located about one kilometre to the east of Gelis River. Except for a very small centre, this town, which was later known as East Kudus, was built quite spaciouly, as were other nineteenth-century Javanese towns.<sup>101</sup>

The basic layout and settlement pattern were typical. The town centre consisted of:

- (1) a town square of about 100 squaremetres with two banyan trees in its centre, is located in the centre of the town and serves as a civic centre;<sup>102</sup>

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<sup>98</sup> See Jasper, *op.cit.*, p. 13.

<sup>99</sup> This must have been today's Menara and Kyai Telingding streets, both of which form the north-south axis of the crossroads; Jasper describes how in the morning, when one side of these streets is brilliantly lit by the sun, the other half is cast in shadow. See: *loc. cit.*

<sup>100</sup> Jasper, *op.cit.*, pp. 17-20.

<sup>101</sup> Schrieke, 1958, *op.cit.*, p. 69.

<sup>102</sup> These trees symbolise the protective function of the government. They were cut down in 1969, possibly during a redevelopment of the square. See : Suharso, *op.cit.*, p.30.

- (2) a town mosque, which serves as the main religious centre, is located on the west side of the square;
- (3) a complex consisting of a town hall, offices, and the residence of the Regent, which act as a political and administrative centre, is located on the north side;
- (4) a town market, which serves as a trading centre, is located on the east side; and
- (5) shops and other public buildings are located on the south side.

The town square of Kudus was developed to have seven intersecting roads, and became a place for official ceremonies and public gatherings. Other important government offices and buildings symbolising power and authority, such as the police station, the regency court, the prison, and the government pawnshop, were situated on the cross streets on sites nearest to the square.

The town was divided into wards, each for a community of a particular occupation or ethnic group. A community of strong Islamic orientation resided around the town mosque, forming the *kauman* of the new town. One ward was occupied by the notables of the town, such as the regency secretary, the Dutch headmaster of the public school, the notary public, the regency prosecutor, the regency physician, the head of the government pawnshop, Dutch and other European businessmen. The public school was also often located in this quarter. There were also churches for the Europeans and Indo-Europeans. Another ward consisted of the houses of the Indo-European officials and most of the Javanese officials and intellectuals. Chinese shops and shop-houses were located in another ward, as were shops and residences of other foreigners, such as Arabs, Indians and Persians, forming the economic ward of the town. A railway station and a housing complex for railway employees were located in a separate ward, as were a sugar factory and a housing complex for the factory employees. Subsequent concentric circles consisted of town wards occupied by less wealthy indigenous people, followed by the *kampung* wards in which lived the lower-ranking people whose houses were mostly built of bamboo. These circles gradually blended into the surrounding open countryside and rice fields.<sup>103</sup>

### **Post-colonial Kudus**

Since the revolution of Indonesian independence in the mid 1940's, except for increasing population, the outward appearance of Kudus town has changed little. Alterations started in the mid 1970's when a new urban development programme was launched by the government of Kudus Regency. This programme, which was aimed at town beautification and traffic planning, consisted of the widening of main streets

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<sup>103</sup> Refer to : Koentjaraningrat, op.cit., p. 230.



in the town, accompanied by the construction of street lighting and the planting of trees along these streets. Local businesses made contributions to the carrying out of this programme.

The widening of roads encircling the Regency Square resulted in the beautification of the square as 'a crossing of seven streets' (*Simpang Tujuh*), although it led to the loss of the banyan trees in the centre of the square. The street widening, moreover, resulted in unsympathetic changes to street facades, including those of the Chinese shophouses along Sunan Kudus Street, which connects West and East Kudus. Further traffic growth led to Madurekso Square being converted from a traditional market place into a parking space for visitor buses.

Rapid urban sprawl has taken place in Kudus since the mid 1980's, in line with the launching of a regional industrial development programme of north coastal towns by the government of Central Java Province in the 1980's. Administrative activities, which are centred in the Regency office complex on the northern side of the Regency Square have become more and more congested, leading to their expansion into the eastern part of the town. This was followed by the development of a sports and recreation centre. Commercial activities, which are located along the main streets of both Old and New Kudus have also expanded to the southern part of the town, centred around the former bus terminal. This former terminal was converted into a public plaza, surrounded by wide roads and four-storey contemporary commercial buildings. New bus and truck terminals were moved from the southern part of the inner town to the outer southern and north-eastern parts of the town. Inner and outer ring roads were also planned and have recently been built, in order to both reduce traffic congestion in the inner town and connect parts of the expanding town.

Urban development of Kudus has been focussed on the newer parts of the town, leading to the old town facing a process of urban decay. The urban structure and visual appearance of West Kudus have changed since the time of Jasper's, and even Shirazi's observations. Apart from the altered Madurekso Square and streetscape of Sunan Kudus Street, changes have occurred on the old Menara, Madurekso and Kyai Telingsing streets, and in the residential quarters and their timber houses. A number of visually incompatible facades of contemporary houses replaced original street facades of traditional timber houses which were brick walls with small openings and gates. Removal of timber houses has resulted in empty lots in the residential quarters, blank walls on street facades, and altered streetscapes. Lack of proper maintenance of timber houses has resulted in physical decline, leading to degradation of appearance. The sale of parts of the interiors, the construction of new structures in

the courtyards and the division of timber houses with new partitions, moreover, have resulted in these houses losing their original architectural quality.

## **2.2 The Architecture**

### **2.2.1 Old and New Towns**

The town is largely spacious in character, as are other Javanese towns of similar size and administrative status.<sup>104</sup> It consists of small centres of primarily one-storey public buildings and three- or four-storey commercial buildings, surrounded by extensive quarters of mixed residential and industrial uses. A few number of five- or six-storey commercial buildings have recently been built on the southern and eastern parts of the town. Agricultural areas immediately encircle the town. These rural areas consist of villages surrounded by yards (*pekarangan*) and large cultivated lands producing rice, sugar cane and dry-season crops.

Kudus can be approached from three main directions, either from Jepara, from Surabaya via Pati, or from Semarang, Yogyakarta and Surakarta via Demak. Streetscapes along the road between Demak and Kudus are most interesting. Traditional rural houses, the shape of which is similar to traditional timber houses of central Kudus, stand along some parts of this road. Approached from any direction, the distinct character of the town is difficult to discern. Once entered and experienced, however, the town reflects three peaks of historical urban development, each of which presents a distinct atmosphere.

The busy and recently widened Sunan Kudus Street leads from the direction of Jepara to the sixteenth-century Islamic town, West Kudus. One soon reaches the old square, Madurekso Square, which is situated on the left hand side next to the crossing of Sunan Kudus Street with the narrow Menara and Kyai Telingsing streets. This square was surfaced with asphalt and converted from a traditional market place into a parking space in about 1972. A humble and neglected small mosque, Madurekso Mosque, is situated on the western part of the square, and a huge banyan tree lies in the centre. This tree provides shade, under which a number of stalls, booths and vendors sell food, drink, cigarettes, fruits, newspapers and patent medicines. Menara Complex, a compound containing al-Aqsa Mosque, Menara minaret and the

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<sup>104</sup> Kudus region is a regency (*kabupaten*) and often called "district" in terms of administrative status which should not be confused with the terms 'district' used in this study. It consists of nine "sub-districts" (*kecamatan*), one of which, the subdistrict of Kudus town, is what people refer to as the town.

cemetery of Sunan Kudus encircled with unplastered clay brick walls, is the architectural landmark of West Kudus. Streets are narrow, about six to seven metres wide, and the residential quarters are compact in character. (See drawings 1A, 1B, 1C, 2A, and 2B in Appendix I) These quarters consist of a mixture of traditional timber houses and white-washed plastered-brick houses built close to one another. Most of these houses are surrounded with high walls, resulting in one- to two-metre-wide alleys. Various trees of edible fruit, such as banana, coconut, rambutan, mango, papaya, rose-apple, guava and carambola grow in private gardens. Men, women and children wearing Muslim-style dress and the sound of Islamic chant from al-Aqsa and the large number of neighbourhood mosques contribute to the distinctive atmosphere of West Kudus.

Arriving from the direction of Pati, one arrives at the grassed Simpang Tujuh town square of the early nineteenth-century administrative centre, East Kudus. The Regency Hall, the Regency town mosque, a market and shops surround this square. Buildings in East Kudus are largely of one or two storeys, mostly white-washed plastered brick under brown clay-tile roofs. More recent buildings are of three storeys with flat concrete roofs, large glass windows and ceramic-tiled exteriors. Trees provide shade along most of the streets. The aroma of cloves and tobacco from local factories fills the air. East and West Kudus, which are separated by Gelis River, are connected by an old bridge built in the Dutch colonial period. This bridge was broadened and replaced with a newly constructed one in early 1993.

From the direction of Demak, one arrives at a paved plaza created in the late 1980's surrounded by four-storey buildings forming a contemporary commercial centre. The plaza and the contemporary commercial activities in its vicinity has fueled local pride in the rapid development of Kudus. Wide roads with busy traffic surround the plaza, within which a 27 metre-high minaret-like structure called Identity Monument (*Tugu Identitas*) is located. This monument, its shape resembling the old minaret in the old town, serves as a visitor centre and a look-out tower.

### **2.2.2 Timber Houses of Kudus**

Kudus timber houses are built according to Javanese architectural tradition. In this tradition, houses are built to meet purposes based both on the socio-cultural priorities

of the Javanese and on the climate, geography and ecology of Java.<sup>105</sup> The fact that traditional houses of Kudus are different from those of other north coastal towns of Java, particularly in terms of spatial formation and adornment, however, shows that the concept is based more on the former than the latter. This is in accord with Rapoport's theory that socio-cultural factors, such as life patterns, beliefs, desires, ways of life, imagery, social organization, concepts of territoriality and links between dwelling and settlement pattern are primary. Climate, construction, material and technology are secondary or modifying factors.<sup>106</sup>

Regardless of spatial formation and quality of ornament, Kudus houses are built according to Javanese building construction methods. Considerations include:

- (1) comfort, privacy and security controlled by means of walls, openings and internal courts;
- (2) tropical climate and humidity controlled by means of roof shapes, walls, openings and raised floors;
- (3) aspects of way of life, symbolic system and social structure expressed in hierarchy of spaces and building elements, separation of sacred and profane spaces and quality of interior lighting; and
- (4) anticipation of unpredictable situations such as infertile land, flood and earthquake, by means of movable knockdown and semi-permanent wood construction methods.<sup>107</sup>

The sizes and styles of Javanese traditional buildings, which are determined by the shapes of their roofs, indicate building uses according to functional and spiritual hierarchies. The roof types of the main buildings of Javanese houses, moreover, symbolise the prestige and class of the inhabitants. An average villager has a house with a *kampung* roof, which is also called *trojogan* roof, or a *srotong* roof, which is a *kampung* with additional front and back overhangs. Houses with a *limasan* roof are restricted to families who consider themselves descendants of the original inhabitants of a village, and who often form a sort of village nobility. The houses of the village head and officials usually have a *limasan* roof, or sometimes even *joglo*, which in the past used to be restricted to houses of government officials in administrative towns or houses of the nobility in the court towns.<sup>108</sup> In addition to the above three roof types used for houses, two other types, *panggang pe* and *tajug*, are commonly used

<sup>105</sup> Ismudiyanto & Parmono Atmadi, *Demak, Kudus, Jepara Mosques : a Study of Architectural Syncretism*, Department of Architecture Faculty of Engineering Gadjah Mada University, Yogyakarta, 1987, p. 86.

<sup>106</sup> Amos Rapoport, *House Form and Culture*, Prentice Hall, New York, 1969, p. 9.

<sup>107</sup> Ismudiyanto & Atmadi, op.cit., p. 87.

<sup>108</sup> Koentjaraningrat, op.cit., pp. 134-5.

for other buildings. The former is usually used for outer buildings or additions to a house, and often for non-permanent stalls or small shops. The latter is used for sacred buildings only, such as mosques and cemeteries. (See : Madurekso Mosque, drawings 10A and 10B in Appendix I)

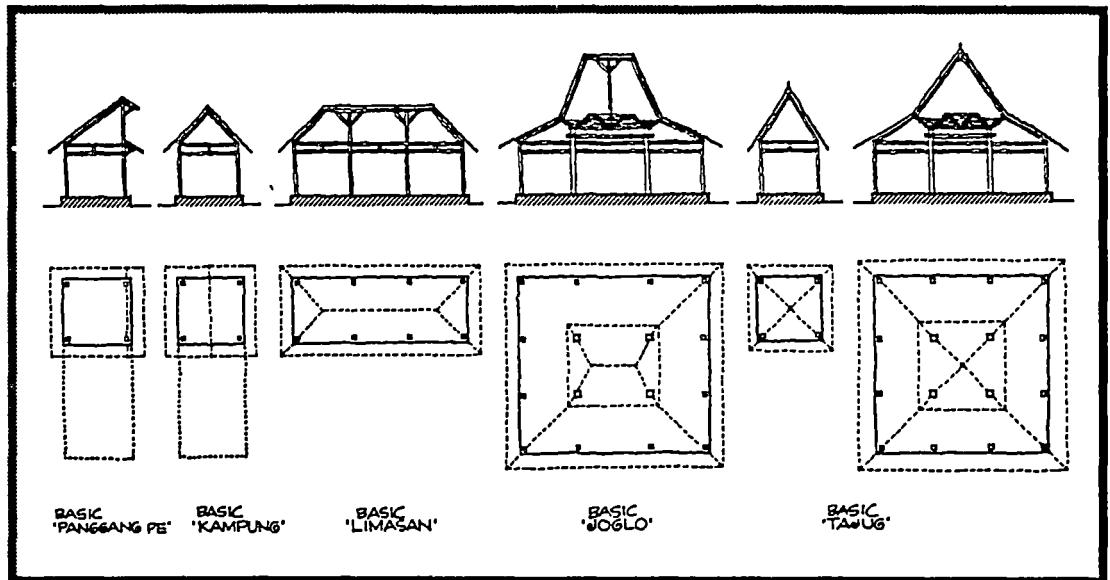


Fig. 2.3 Sketch of five basic types of Javanese traditional buildings.

Javanese building types may therefore fall into five basic categories:

- (1) *panggung pe* type, which is the simplest in form and construction technique; it has a monopitch roof and a square or rectangular ground plan with 4, 6, 8, 10, 12, and so on number of columns supporting the roof;
- (2) *kampung* type, which is the simplest structure used for an entire dwelling; it has double pitched roof and a square or rectangular ground plan with 4, 8, 12, 16 and so on number of columns;
- (3) *limasan* type; it has a hipped roof, a square or rectangular ground plan with 8, 12, 16, and so on number of columns;
- (4) *joglo* type; it has an umbrella-like construction with a hipped roof of varying pitch and a rectangular ground plan; four central main columns called *saka guru* support the steepest upper roof, and secondary columns called *saka pananggap*, tertiary columns called *saka rawa*, and subsequent additional columns called *saka santen* and *saka paningrat* support the lower roofs; a specific beam construction consisting of several layers of wooden beams forming a stepped ring both outwardly and inwardly called *tumpang sari* tops the *saka guru* to support the central roof; and

- (5) *tajug* type; it has a pyramidal roof of varying pitch and a square ground plan with four *saka guru*, with additional columns as in the case of *joglo* type.<sup>109</sup>

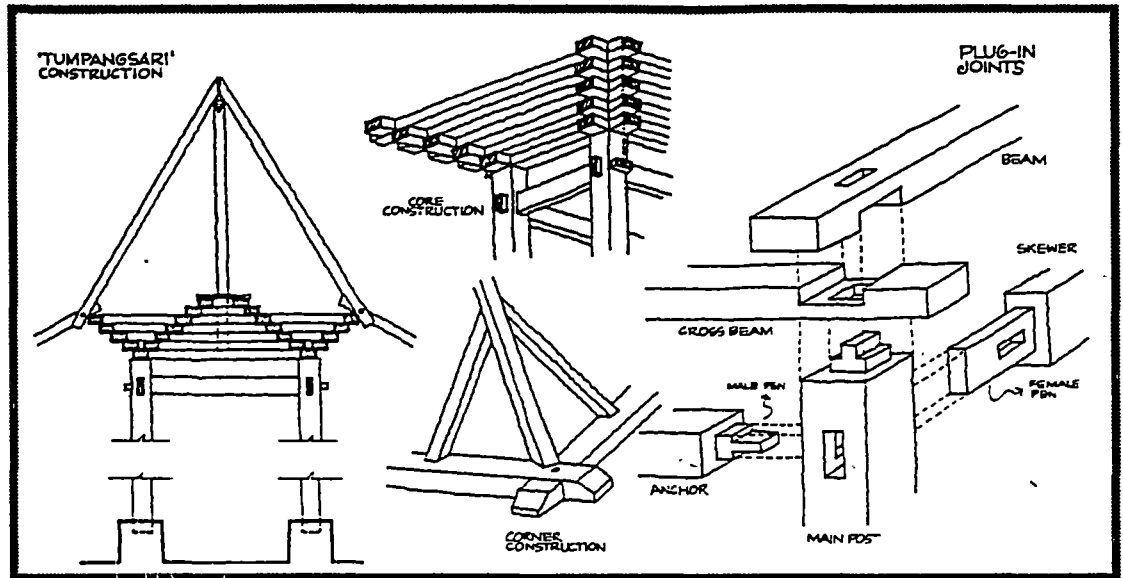


Fig. 2.4

Sketch of detail of 'tumpangsari' construction, the core structure of more sophisticated Javanese traditional architecture. Source : Ismunandar, 1987; Tjahjono, 1989.

In a religious community of traders, as in the case of Kudus, the choice of house types reflects the status of original owners in terms of economic wealth rather than socio-cultural class, as in the case of agricultural communities in court centres like Yogyakarta and Surakarta. The choice implies the degree of timber use, the quality of timber, and the quality of adornment in terms of construction techniques and woodcarving. At the time when timber houses were first built, wealthy traders usually chose elaborately carved *joglo* type houses, either high or low, which are made up of high quality teakwood, whereas less wealthy residents chose *payon* type with low quality timber and much less adornment.

Based on the above categorisation of Javanese buildings, traditional timber houses of Kudus can be grouped as:

- (1) *payon* type, which is a Kudus term for *kampung* type (for an example, see drawings 9A, 9B, and 9C in Appendix I);
- (2) *limasan* type (see drawings 7A and 7B);

<sup>109</sup> This is based on a categorisation and documentation undertaken by Mr. Minto Budoyo, a renowned expert on Javanese traditional buildings as remarked by Tjahjono. See : Gunawan Tjahjono, *Cosmos, Centre and Duality in Javanese Architectural Tradition : the Symbolic Dimensions of House Shapes in Kota Gede and Surroundings*, unpublished Ph.D dissertation, University of California, Berkeley, 1989, pp. 89-99; also see : Ismudiyanto & Atmadi, op.cit., pp. 87-9.

- (3) *daragepak* type, which is another type resulted from a combination of *kampung* and *limasan* types (see drawings 8A, 8B, and 8C);
- (4) low *joglo* type (see drawings 3A, 3B, 4A, 4B, 6A, 6B, and 6C); and
- (5) high *joglo* type (see drawings 5A, 5B, and 5C).

The *payon* type is the simplest, whereas the high *joglo* type is the most sophisticated.

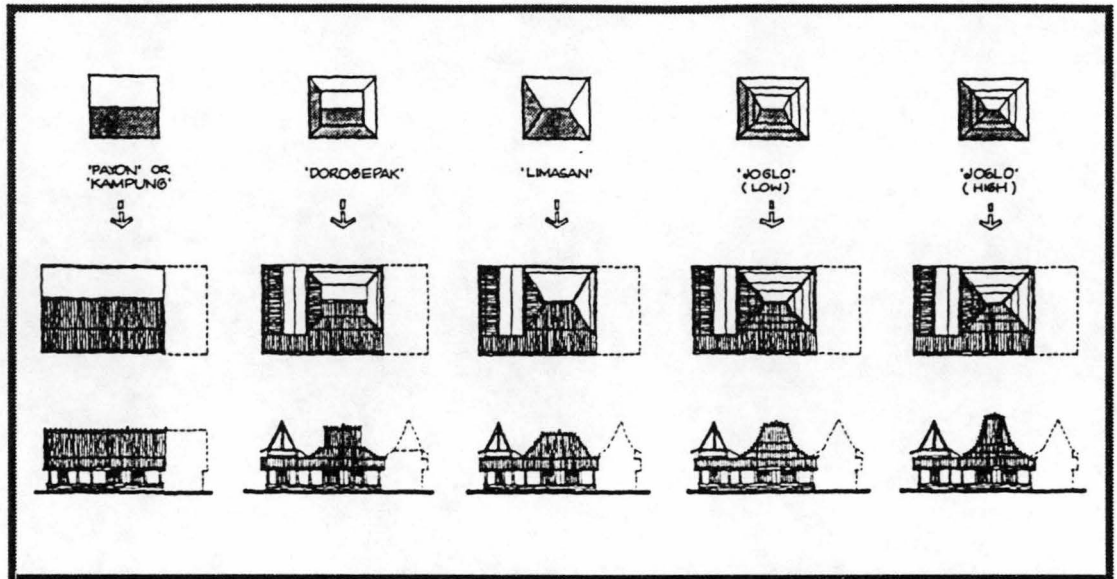


Fig. 2.5 Sketch of five types of traditional timber houses of Kudus, showing the main buildings.

The basic ground plan of Kudus houses is very simple. The main house, mostly constructed of timber, consists of a front part (*jagasatru*), an inner part (*senhong*), a shrine-like room (*gedhongan*), and one or two side parts (*pawon*) which often becomes three with the back part of the house.<sup>110</sup> A water well with washing space, bathroom and lavatory, constructed of white-washed plastered brick, forms a separate part situated in front of the house, either on the left or right hand side. The space between the house and the well is an open courtyard, which also often serves as a shared semipublic path.

The front location of the water wells and washing places is peculiar to Kudus. In traditional Javanese dwellings generally, washing places are socio-culturally considered to have a low rank in space hierarchy. They are usually located at the back of the house, along with kitchen, rooms for servants, and storage rooms. In Kudus, washing places appear to be considered as both religiously and hygienically important.

<sup>110</sup> It should be noted that the use of the terms *senhong* and *gedhongan* is often confusing. In Javanese traditional houses of Yogyakarta and Surakarta, the inner part of the house is called *omah jero* instead of *senhong*, and the shrine-like room is called *senhong* instead of *gedhongan*.

Their front location may originate from the custom of the inhabitants to wash feet before entering their houses. The location of the washing places provided an opportunity for Kudus boys, at the time of marriage proposal, to see their wives-to-be because, until about half a century ago, girls of Kudus were kept in the houses and prohibited from having direct contact with men. Kudus boys could only see their girls at a distance from *jagasatru*, while the girls walked back and forth between their houses and the washing places.

*Jagasatru* is used for receiving guests. A single column, either on the right or left hand side, support the main beam of this room. According to local oral history, position of the column indicates the family who built the house, left for maternal line and right for paternal line. In very rare cases *jagasatru* may have two columns, indicating that both husband and wife built the house.<sup>111</sup>

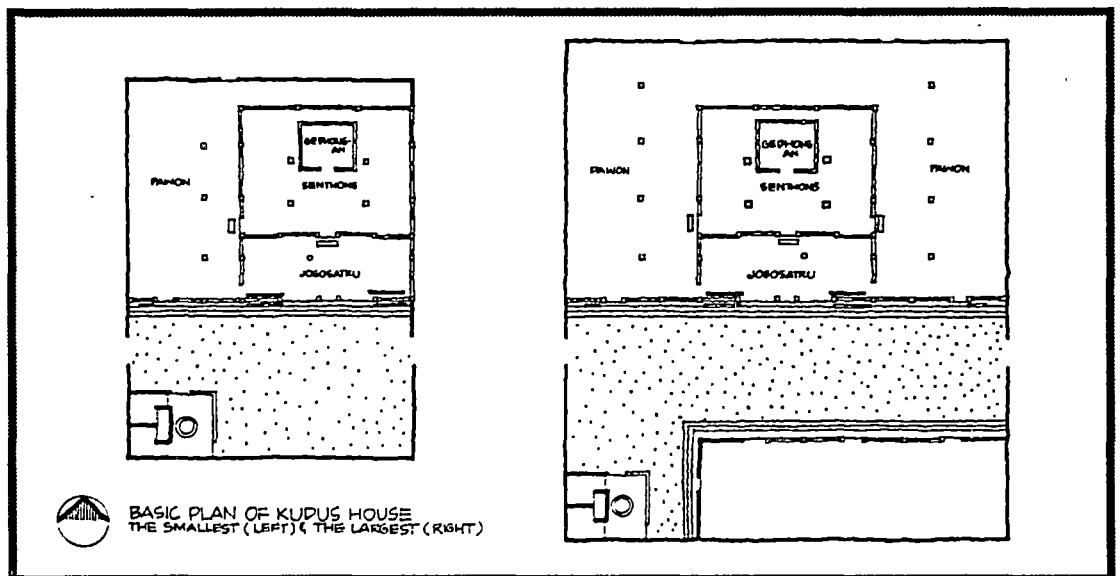


Fig. 2.6 Sketch of basic ground plan of traditional timber houses of Kudus.

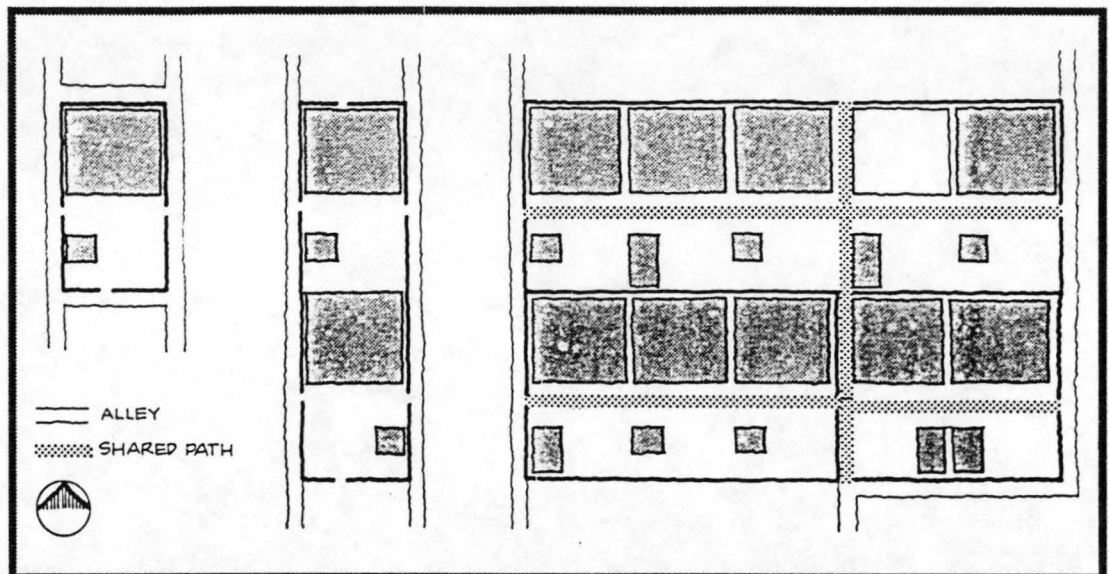
*Senthong* is generally used only for special gatherings and ceremonies. In some houses, however, the spaces on the two sides of *gedhongan* are used as sleeping rooms for parents with younger children, and grandparents. *Gedhongan*, which, in pre-Islamic agricultural communities, was originally a room dedicated to the rice goddess, is often left empty or used for praying, but seldom for sleeping. Routine daily activities occur mostly in the *pawon*. This space, the term for which literally means 'kitchen', is used not only for cooking, but also for eating, working, storing,

<sup>111</sup> As remarked by Mr. Afif Masluri, the Chief Manager of Kretek Museum.



and sleeping for older children of the family. The attic of the *pawon* serves as storage for goods related to the family business.

A large number of houses have been altered, leading to changed use of spaces. Most houses have lost their *gedhongan*, or parts of their inner and outer partitions due to sale or decay. In this cases, instead of a *gedhongan* with two side rooms, the inner part of the house has three sleeping rooms. The space in front of these rooms, moreover, often serves as a multi-purpose space for daily activities. A house is now often occupied by two or more different households, one in the main house and one in the side house. More families can be accommodated if a new building is constructed on the former front courtyard.

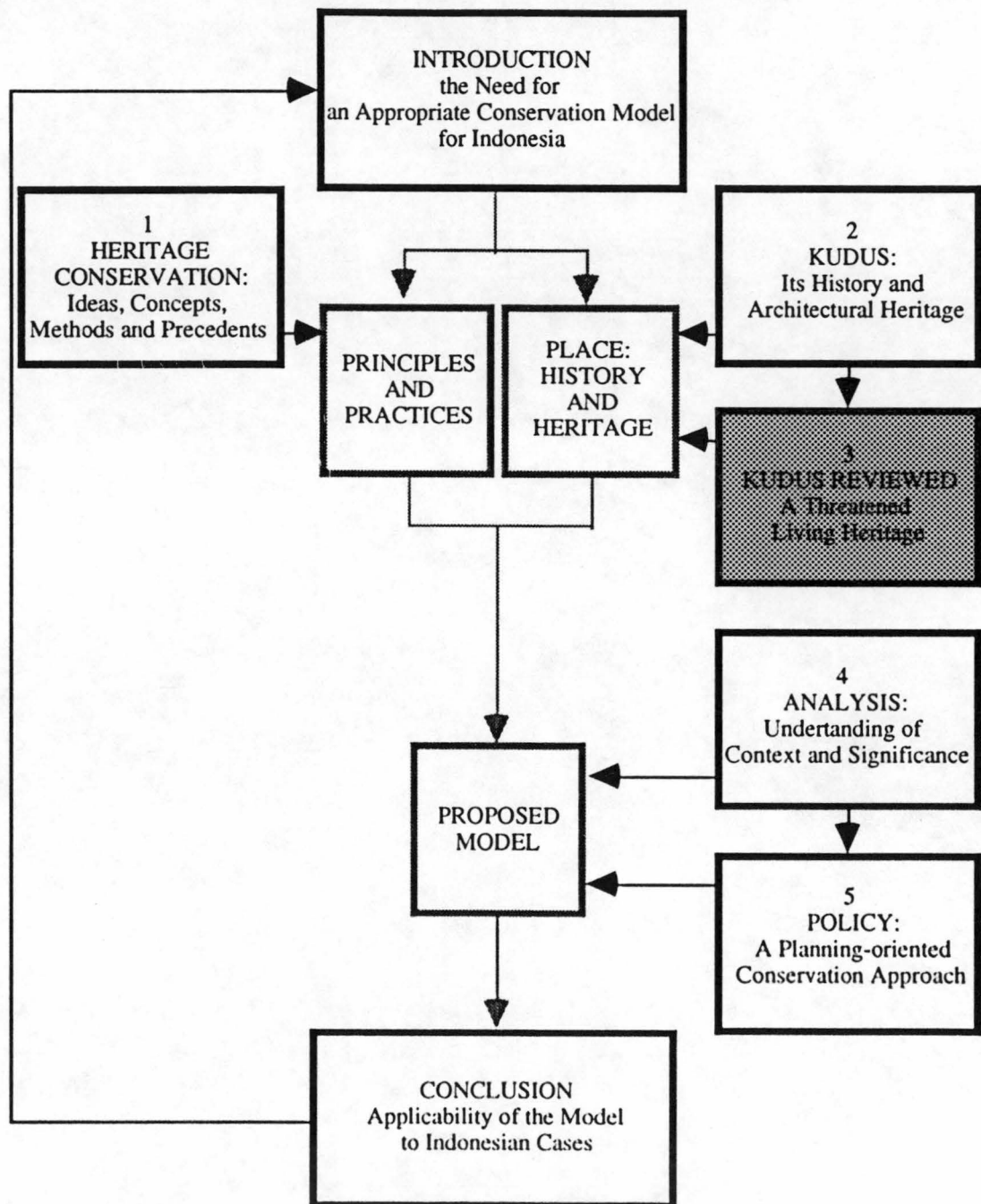


**Fig. 2.7** Sketch of basic site pattern of traditional timber houses of Kudus.

Based on site patterns, traditional houses of Kudus can be distinguished as: (1) enclosed individual type; (2) open individual type; and (3) row type. High brick walls distinguish enclosed type houses. Two or more narrow gates connect its inner courtyard to the alley or the street. In an open individual type house, the courtyard usually serves as a semi-public path for neighbours and passers-by. The boundaries of the house can be a low transparent fence made up of timber, bamboo or iron railings, or a natural fence made up of shrubs. The row type is usually open, providing the row courtyard as a shared access for each house and a semi-public path for the neighbours.

All houses, including those situated along both sides of streets, face south. The exceptions are a few modern-style houses on Menara, Kyai Telingsing and Madurekso streets. If a house has a small shop facing the street, the main house remains facing south. Such an orientation may be due originally to Javanese symbolic classification, which considers the north, the direction of Mount Muria, as beneficial, whereas the south, the direction of the swampy area, is negative. This orientation places the *gedhongan* shrine on the north position, while allowing people to face north in performing offerings for the rice goddess, in the case of pre-Islamic traditions of the agricultural communities. In religious communities of traders such as Kudus, the orientation apparently relates more to climatic considerations than symbolic classification. As Java is situated to the south of the equator, houses that face south receive more shade on entrances and front courtyards and for a longer period annually than those that face north. Houses that face south, moreover, indirectly receive both morning and afternoon sun light, while avoiding glare.

**Safeguarding a Living Heritage:**  
**A Model for the Architectural Conservation of an Historic Islamic District of Kudus,**  
**Indonesia**



# 3

## KUDUS REVIEWED : a Threatened Living Heritage

### 3.1 Development and Conservation

#### 3.1.1 Current State of Urban Development and Conservation

Planning activities for Kudus have tended to emphasise the shift of new industries, housing, and administration to the east and south, and the improvement and widening of streets through the introduction of landscaping and lighting, leading to a gradual neglect of the old city in the west. A number of factors have led to the decay of the original urban fabric of the old city. The eastern and southern parts of the town have been more successful in attracting economic development. The number of deserted residential and commercial areas in the old western district has increased, and many industrial facilities such as tobacco warehouses have shifted to the east. Traffic policy has introduced wider streets into old Kudus, leading to considerable alteration of the district. Well-to-do and influential families from West Kudus have migrated to the East or even to other towns in search of contemporary facilities considered more suitable for today's activities and way of life. The traditional family system has weakened, leading to higher mobility and less maintenance of traditional family homes.

Kudus has experienced a number of urban development projects over the last twenty years. Many of these projects have been characterised by a lack of consideration for the urban and architectural heritage resources of Kudus. Street-widening projects have destroyed significant parts of the town. Recent streetscape beautification and urban development programmes have led to Kudus winning the national *Adipura*

Award in 1991 and 1992.<sup>71</sup> The award, however, seems to have been granted for physical and socio-economic progress achieved in new sectors of the town. The old town seems to have received little attention from the judging panel, and was excluded from the evaluation.

The proposed Menara Area Tourism Development Project has reflected a new government shift toward conservation-oriented planning which considers the entire historic Islamic district as architectural heritage requiring protection. However, this project still remains a proposal in the budget year of 1993-1994. A shortage of government funds has delayed its implementation. In practice there has been little governmental action to protect the architectural heritage of Kudus from the dangers of demolition, replacement, and incompatible alteration. The town planning process seems to ignore the significance of the architectural heritage, particularly that of the old town. As a result, Kudus has lost much of its original architectural and urban character.

The heritage resources of the old town remain vulnerable. Popular fascination with contemporary development may result in continuing disinterest in the urban and architectural resources of the old town. Continuous traffic growth in the main streets of the old town could lead to further widening of streets. The existing master plan does not include information or discussion on the value and character of the urban and architectural heritage, so that, quite naturally, it does not address policies on heritage protection. The existing master plan does not provide directions for future urban conservation. Existing conservation actions appear to have been ineffective. Partnership with private businesses in early development programmes, moreover, seems to emphasise financial benefit rather than a balance between conservation and commercial purposes.

Preceding the Menara Area project, a number of conservation actions were carried out by the local government, Kudus Regency, all of which focussed mainly on the protection of timber houses. They included a subsidy programme for timber house owners, the passage of two ordinances on timber house protection by the Regent, the translocation of a timber house to the front yard of Museum Kretek -- the cigarette industry museum located in southern part of Kudus -- and the construction of a Kudus pavilion for cultural exhibition in Central Java Miniature Park in Semarang. It is worth noting, however, that the translocation were undertaken as a partnership

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<sup>71</sup> *Adipura* Award is given annually by the President to towns evaluated to be the cleanest and the most beautiful, while being successful in their urban development and socio-economic improvement programmes.

between local government and a private business. It is also important to note the support given by the traditional *waqf* institution to the maintenance of mosques and religious complexes. Despite its concentration on communal religious structures and their particular religious role, this institution demonstrates the potential participation of local communities in heritage conservation.

### **3.1.2 Current Problems in the Old Town**

The lack of formal and informal planning controls has put the architectural heritage of Kudus into jeopardy. At the same time, intervention in the historic district continues to place it at risk.

Physical crowding of people, buildings and public spaces places enormous pressure on the architecture of the historic district. The residential quarters, including individual houses and shops, have become overcrowded. New structures are built within their curtilage, and partitions added in order to subdivide their interiors. Most houses are occupied by extended families of two or three generations, or have been sold or rented to unrelated households.

A process of dereliction and decay has recently taken place in the old town of Kudus, resulting in a slum-like appearance in several areas. This has been due to demolition, incompatible alteration, and simple neglect by the inhabitants, rather than external threats resulting from development programmes. Lack of rudimentary maintenance and services, particularly of timber housing and public spaces, and financial and physical instability in this urban district are detrimental. If this process continues, it may irreparably alter the character of the old town.

The traditional timber houses are the most threatened. Many of them have fallen into disrepair, have been dismantled and sold in parts, or have been sold for removal to other towns. The dismantling and removal have left vacant lots on the original sites or blank walls along the streets and alleys. These sites provide opportunities for the construction of new buildings which are usually incompatible with the overall architectural character of the residential quarter or the street facades.

Streets, which originally served as pedestrian spaces, have become congested with traffic, i.e. Menara Street and Kyai Telingsing Street, or have been widened, i.e. Sunan Kudus Street. The widening of Sunan Kudus Street caused the loss of its original Chinese shophouse facades. Its narrow bridge, which was built by the Dutch

colonial government, was also widened at the end of 1992. The narrow Menara Street has been threatened with the possibility of a street widening programme.<sup>72</sup>

Other street facades have suffered from lack of maintenance or extensive, unsympathetic alterations. Alteration of facades along Menara Street and Sunan Kudus Street still occur. A number of contemporary houses have been built along the streets, altering the original architectural character of the facades and the scale of the streetscapes. Widened streets, moreover, produce greater negative impact to buildings and the environment, due to vibration and air pollution resulted from the increased traffic. They also encourage the emergence of new small-scale commercial activities, which may accelerate the construction of inappropriate buildings.

The old square and other streets have largely been ignored, although they constitute significant elements of Kudus town. Squares and streets are used for public purposes and are maintained by the Regency government. Madurekso Complex, which contains a square and a mosque, is administratively part of Kerjasan quarter, although physically closer to Kauman and Langgardalem. In order to effectively use and maintain the Madurekso Complex, a proper management mechanism shared between the regency government and the Kerjasan community is needed.<sup>73</sup> The main public space of the old town, the Madurekso Square, has gradually lost its function as a space for public amenities. The space itself has been converted into a parking area for pilgrims and visitors. Public buildings, such as a library, an artists club, a bus shelter, a public toilet, and a cooperative shop, which were built on the periphery of the space, seem unsuccessful in generating public activity, while having little architectural quality.

### **3.1.3 Factors Contributing to the Problems**

A complex combination of factors -- economic, social, political and physical -- contribute to the current situation. Economic factors include decreasing economic activity, the inheritance system, and the rising value of timber houses. Changing circumstances forced the retail merchants of the old town to reduce trading and develop home industries. The descendants of prosperous tobacco and agricultural commodity traders earn their living from tailoring, shoemaking, embroidery, and traditional food or medicine production. Few of them are school teachers, religious teachers, or

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<sup>72</sup> According to an unofficial statement of some government staff, Menara and Kyai Telingsing streets may also be widened and "beautified", due to their increasing congestion and the already altered state of their facades.

<sup>73</sup> Interview with Mr. Muchlas Ashari, the Head of Kerjasan quarter, 28 January 1993.

government officials. The traditional inheritance structure creates difficulties in distributing ownership of timber houses among many family members. In addition, the growing appreciation for the heritage qualities of traditional timber houses has created a financial incentive for owners to sell and remove houses, often to finance construction of new houses on the empty lots. Traditional buildings are perceived as costly to maintain.

A combination of social factors have had a negative impact on the physical environment. Changing lifestyles and a popular fascination with contemporary houses has led to the replacement of traditional houses with the contemporary ones which are incompatible with the character of the old residential quarters of the district. The trend toward car ownership makes the narrow streets and paths of Kudus unattractive to relatively well-to-do residents who prefer newer districts of the city.

Given the preponderance of timber in the architecture of Kudus, physical factors in the loss and decay of the old town are of particular concern. The effect of tropical weather on buildings, the loss of traditional building practices, and the scarce supply of good quality timber have had a significant impact on the maintenance and use of traditional buildings. Tropical climatic factors, including humidity, growth of insects, fungi, and other destructive organisms, high rainfall and wind-driven rain, have a detrimental effect on traditional timber and lime-washed plastered-brick buildings. This natural weathering contributes to the high maintenance cost of older buildings.

The decline of traditional building skills and the scarcity of building materials have also been noted. Traditional skills are still practised by Kudus woodcarving artists, but the scarce supply of good quality teakwood has hindered the production of good quality carved timber houses. Traditional building techniques, moreover, are time- and resource-consuming, requiring more expensive materials, greater construction knowledge, and finer craftskill. The average resident can afford neither the building of new traditional timber houses, nor the maintenance of existing ones.

Political factors contributing to degradation of the historic district hold particular significance in this study. Government programmes promoting cleanliness, order and beauty in urban development have led to an emphasis on town development and tourist development which excludes a concern for architectural heritage. Cleanliness has often been interpreted as wide, smooth roads and open spaces, or glittering glass-and-tile facades. National and local improvement programmes have often interpreted progress as modern houses, medium-rise buildings, wide streets, large public



spaces, and motor vehicles. Tourist development has been interpreted as the building of new tourist attractions, often stylised recreations of existing heritage structures or traditions.

### **3.1.4 Government-funded Development and Conservation**

A summary of relevant government programmes follows. Most programmes were sponsored by the local government authority, Kudus Regency, and its departments and offices. Others were initiated at the regional level by Central Java Provincial government. The National Department of Education and Culture has also influenced the policy.

#### **(1) Kudus Urban Development Programme, early 1970's**

The Kudus Urban Development Programme, launched in the early 1970's, followed a period of economic stagnation caused by political instability.<sup>74</sup> The objectives were the provision of adequate space for increased traffic and the enhancement of townscapes and streetscapes for town beautification.

Traffic planning consisted of widening major roads leading to the town, major streets within the town, and the road leading to the natural heritage of Mount Muria. Endangered species of tropical trees were planted along these roads and streets, and pedestrian spaces and street lighting installed. A Kudus-based cigarette manufacturer assisted the streetscape enhancement programme, particularly in the provision of trees and lighting.

#### **(2) Timber House Subsidy Programme, 1978**

A subsidy programme introduced in 1978 was probably the first concrete action taken by the government to safeguard the architectural heritage of Kudus. A monthly subsidy was given to owners of selected timber houses. This programme was administered by the Kudus Regency Office of Tourism, and was intended to support the owners of houses with basic maintenance costs.<sup>75</sup> The subsidy was limited to selected houses considered most worthy of protection. Selection criteria included physical integrity and aesthetic qualities, i.e. intactness of spatial organisation, shape and scale of the roof, quantity and quality of the carvings, and quality of the timber. In

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<sup>74</sup> 'Laporan dari kabupaten Kudus' (A report from Kudus Regency), *Suara Merdeka*, 17 December 1993, p. vii.

<sup>75</sup> Interview with Mr. M. Bunyamin, Staff of Kudus Regency Office of Tourism, 12 February 1993.

return, owners of subsidised houses allowed their houses be opened for public inspection. Advice was given by Kudus Regency Department of Education and Culture to owners of the houses, particularly the selected ones, to foster an understanding of the importance of keeping and maintaining their heritage properties.<sup>76</sup>

### **(3) Central Java Integrated Industrial Estate Development Programme, early 1980's**

A regional development programme called Central Java Integrated Industrial Estate Development, initiated by the government of Central Java Province in the early 1980's, has greatly contributed to the development of Kudus. This programme covers adjacent small towns within the northern coastal regions of Java, including the capital of Central Java, Semarang, and neighbouring towns such as Kendal, Demak, Kudus, Jepara, Pati, Rembang and Blora.

Kudus, historically a trading and industrial town, has since grown at a faster rate than the other northern coastal towns. Such rapid growth demanded a development plan, for which preparation began in 1982-1983.

### **(4) Kudus Master Plan, 1988**

The master plan was put into place in 1988.<sup>77</sup> The urban spatial development of Kudus has since been directed to the outlying eastern and southern parts of the town, for two reasons. First, the western and northern parts are considered inappropriate for contemporary development. The historic western areas have great cultural significance and specific architectural character, while the northern areas are seen as a physical transition to the natural heritage of Mount Muria. Second, the eastern and southern parts are strategic economic areas in the context of Northern Java. These parts serve as main entrances to Kudus and link the town with the main trading route of northern Java, and to the inland regions which connect Yogyakarta and Surakarta.

Administrative activities have been gradually relocated to the eastern part of the town since the late 1980's, even though Regency Hall and the Regent's residence have been retained. This shift has been due to congestion in the existing Regency

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<sup>76</sup> Interview with Mr. S. Dwijo Sumono, Head of Cultural Section, Kudus Regency Department of Education and Culture, 15 February 1993.

<sup>77</sup> Source : *Rencana Induk Kota Kudus* (Master Plan of Kudus), Government of Kudus Regency, 1988; *Rencana Detail Tata Ruang Kota dan Rencana Tata Ruang Kota, Kudus* (Town Planning and Detailed Town Planning of Kudus), Directorate of Town and Regional Planning, Department of Public Works, Government of Central Java Province and Kudus Regency, 1987-1988.

office complex located on the north side of the town square. A public sports centre and a recreational park have also been developed in East Kudus. Both the administrative and recreational complexes seem to have been expected to attract housing development in surrounding areas in order to reduce population and congestion in the older town centres.

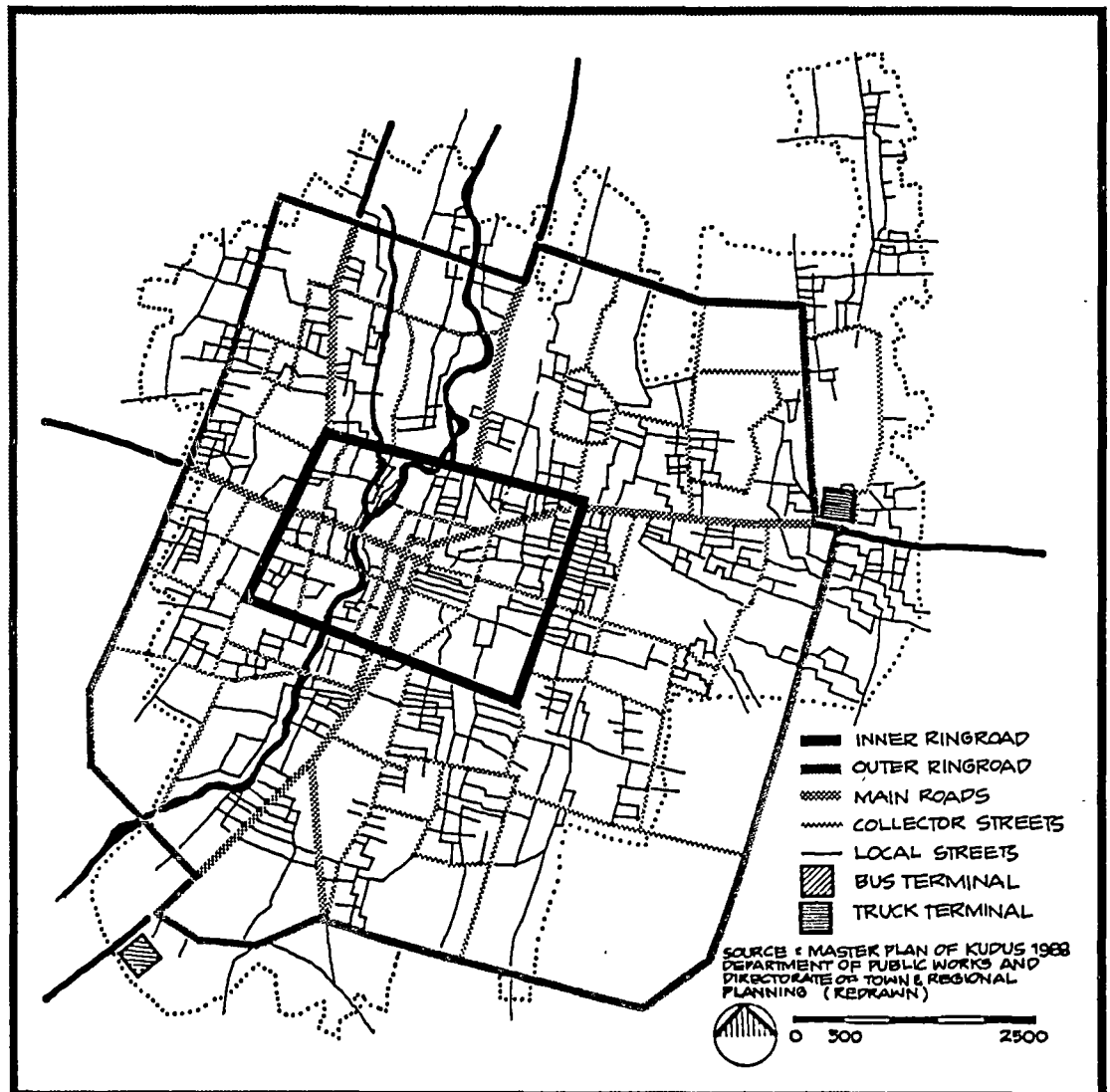
A new bus terminal was constructed in the outer south-eastern area of the town and a new truck terminal in the northeast area, replacing the former terminals which were no longer capable of meeting the needs of traffic and transportation growth. The former bus terminal has since been converted into a new public plaza, popularly called Identity Plaza. The former truck terminal is still to be redeveloped.



**Fig. 3.1**

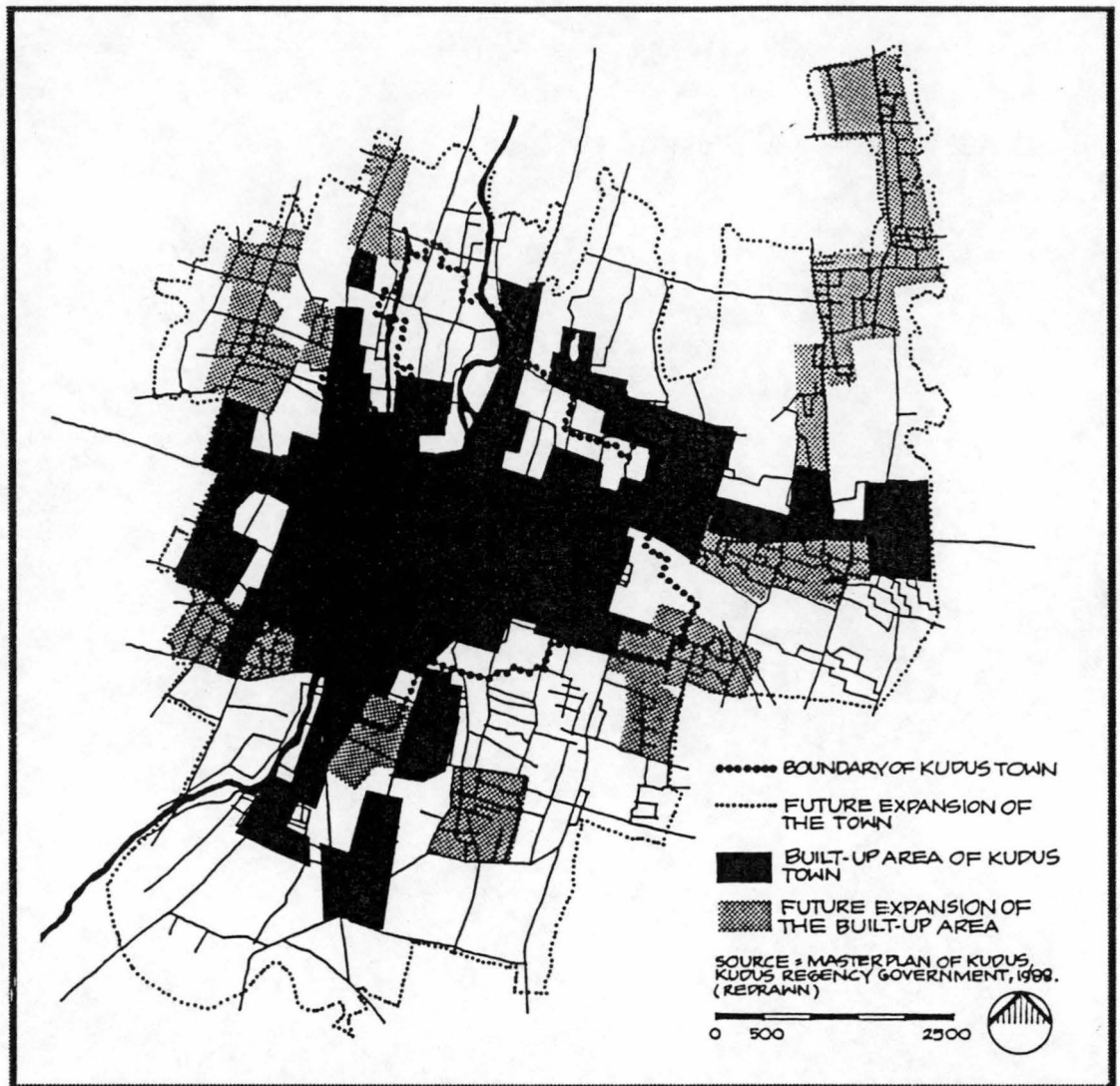
Land-Use Planning (Source : Master Plan of Kudus 1988, the Department of Public Works and the Directorate of Town and Regional Planning)

Commercial activity has been expanded in the southern part of the town in the area surrounding Identity Plaza. A four-storey market was built adjacent to the plaza. Other four-storey modern buildings, i.e. department stores and rental office buildings, have recently been constructed on its west and north sides. Two ring roads, inner and outer, have also been planned and gradually constructed in order to maintain a balance of traffic development between the inner and outer areas of the town, allowing heavy traffic to bypass the increasingly congested inner city.



**Fig. 3.2**

**Traffic Planning** (Source : Master Plan of Kudus 1988, the Department of Public Works and the Directorate of Town and Regional Planning)



**Fig. 3.3**

Expansion Planning (Source : Master Plan of Kudus 1988, the Government of Kudus Regency)

### **(5) Kudus Tourism Promotion Programme**

The construction of Kudus pavilion in the Central Java Miniature Park located in Semarang in 1993 may contribute to the efforts to safeguard the timber houses of Kudus. In addition to tourism promotion, the aims of the Kudus pavilion project is to enhance the protection of Kudus houses on their original sites.<sup>78</sup> The pavilion contains elements considered to represent Kudus heritage, including a full-scale example of a Kudus timber house and traditional bathing place. Prepared by native Kudus woodcarving-artist Buchori, this pavilion exhibits a high quality of wood carving,

<sup>78</sup> Interview with Mr. M. Bunyamin, staff of Kudus Regency Office of Tourism and Project Manager of Kudus Pavilion Development, 16 February 1993.

although it shows a slight distortion of traditional models in its architectural proportions.

#### **(6) Menara Tourism Area Development Programme, proposed in 1992-1993**

A programme called the Menara Area Tourism Development has recently been prepared by the government of Kudus Regency under their Public Housing and Buildings Development Project.<sup>79</sup> The areas concerned include Menara Complex, Madurekso Complex, and their surrounding traditional residential quarters.

This project is intended to develop the historic Menara area as a clean, attractive and well-equipped tourist and pilgrim destination. It has three primary objectives:

- (1) the re-establishment and restoration of the original boundary of Menara complex, with particular reference to the findings of the National Research Centre of Archaeology in 1976 and Syafwandi in 1985;
- (2) the protection of timber houses surrounding the Menara area, primarily those in Kauman, Langgardalem, Kerjasan, Demangan and Janggalan quarters, with particular reference to the instruction of the National Director General of Culture, and the decree of the Regent of Kudus; and
- (3) the development of Madurekso complex as a tourist centre, which will require the redesign of parking space and the construction of visitor accommodation and convention buildings.

### **3.1.5 Conservation Activities**

Concern for the architectural heritage of Kudus became evident about twenty years ago, although a study on its cultural heritage had been conducted by Jasper in the early 1920's.<sup>80</sup> Architectural heritage conservation studies and actions have since been carried out in Kudus by various institutions and professional practitioners. However, little physical conservation has actually occurred and no formal procedures for the protection of the architectural heritage of Kudus have been introduced. The cultural significance of Kudus architecture, particularly that of the old town, is not considered in the town planning process. Neglect by planning authorities has caused Kudus to lose much of its original architectural and urban character.

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<sup>79</sup> Interview with Mr. M. Bunyamin, 12 & 14 February 1993.

<sup>80</sup> J. E. Jasper, 'Het stadje Koedoes en zijn oude kunst', *Nederlandsch-Indie Oud & Nieuw (NION)*, Den Haag, May 1922.

Inconsistencies among the studies and actions, particularly the lack of coordination among activities, institutions and professionals, has contributed to the decline of the old town. Insufficient publication of findings limited their impact on institutions and professionals responsible for town planning, and on the general public. Consistent and effective actions, moreover, have not been taken to implement and monitor the recommendations of research studies.

The efforts carried out to increase appreciation and protection of the architectural heritage of Kudus, however, are worthy of consideration. These can be categorised as follows: (1) cultural and architectural heritage surveys and inventories; (2) cultural and architectural heritage research studies; and (3) conservation actions. There have apparently been no studies on the preparation of conservation plans and development guidelines for their implementation.

### **(1) Heritage Surveys**

A number of surveys of the cultural and architectural heritage of Kudus were undertaken by government agencies. Chronologically, these surveys were initiated by international bodies, followed by national, regional, and local government agencies.

An architectural conservation survey was conducted by B.A. Shirazi in 1974-1975 under a Unesco grant.<sup>81</sup> This survey seems to be the most important as it shows the earliest effort to consider the historic town and the architectural heritage of Kudus as a whole, as well as suggesting its state of conservation. The report very briefly describes the historical background and morphological aspects of the town, identifies places worthy of protection, reveals the state of conservation pertaining to these places, suggests an approach to their conservation, and recommends a preliminary approach to planning. It also includes design suggestions, and recommends urgent actions to be taken. The study did not address policy infrastructure issues. Although lacking in detail, Shirazi's study was the first to be sponsored by an international agency, and may have initiated international recognition of Kudus' architectural heritage. The places identified for protection by Shirazi cover a large area, including Kudus town and its vicinity.<sup>82</sup> These include:

(1) residential areas of historic and artistic value in the old town or West Kudus;

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<sup>81</sup> B.A. Shirazi, *General Survey of Conservation Status of Three Javanese Islamic Cities : Cirebon, Demak, and Kudus*, Unesco, a mimeographed report, December 1976.

<sup>82</sup> *ibid.*, p. 73.

- (2) urban fabric of historic and artistic value in the areas around the new square in East Kudus, as well as the areas along Sunan Kudus Street (previously Pekojan Street), particularly Demakan quarter;
- (3) a number of isolated sites, such as the tomb of Kyai Telingsing in Sunggingan quarter, a Chinese temple in the Chinese quarter on the southern part of East Kudus, and a seventeenth-century mosque and tomb of Sunan Muria on Mount Muria to the north of Kudus town;
- (4) the natural heritage of Mount Muria slopes which also contain rural settlements of great value; and
- (5) a picturesque streetscape containing rows of rural houses along the road between Demak and Kudus.

West Kudus, however, was considered the area in need of urgent attention.

Buildings such as traditional timber houses, mosques, and shops, received proper maintenance at the time of the Shirazi study and, therefore, were in good condition.<sup>83</sup> The study recommended the provision of more facilities for religious education pilgrimage. Shirazi suggested that technical and financial assistance, rather than physical, were urgently required. The brief preliminary proposal consisted of:

- (1) the preparation of a register of the protected areas as national historic monuments;
- (2) the undertaking of photographic survey and documentation of each protected area, indicating both its state of conservation and grade of protection;
- (3) the maintenance of historic buildings in their original condition;
- (4) the protection of significant buildings from demolition and incompatible alteration, such as the demolition of timber houses, the addition of a dome-roofed front hall of al-Aqsa Mosque, and the construction of contemporary houses of little architectural quality which is incompatible with the character of the surroundings;
- (5) the use of existing scale and alignment as design criteria in the construction and reconstruction of buildings in the old town;
- (6) the continuous appropriate maintenance of the houses;
- (7) the adaptation of the traditional timber houses, which generally have simple space organization, to modern uses;
- (8) restriction on construction of new streets;
- (9) the restriction of traffic to pedestrian and manually-powered vehicles;
- (10) the sealing of earthen lanes and the introduction of an appropriate sewage system; and

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<sup>83</sup> *ibid.*, pp. 75-6.



(11) the preparation of criteria for both public and private intervention.

Unfortunately, the study was insufficiently publicised. No recommendations were put into effect. Therefore, the architectural heritage of Kudus continued to be vulnerable to unsympathetic development.

An archaeological survey was carried out by a research team of the National Research Centre for Archaeology in 1976.<sup>84</sup> This survey was probably the first research undertaken by a national institution. This survey, although limited to archaeological antiquities, may have enhanced national recognition of Kudus' cultural heritage. The survey, in fact, increased understanding of some of the oldest Kudus sites, a number of which were found to originate from the Hindu era. It encouraged the maintenance and restoration of selected resources of archaeological significance, i.e. the Menara Kudus "minaret", al-Aqsa Mosque, the cemetery of Sunan Kudus, Langgardalem Mosque, and the Langgar Bubar "destroyed mosque". However, since the survey deals mainly with ancient monuments, the findings had no direct impact on the architectural conservation of historic districts.

In 1986, the regional government of Central Java Province initiated and supervised an architectural survey which was conducted by a private architectural firm. This survey was intended to prepare architectural data which would be the first inventory of Kudus traditional architecture.<sup>85</sup> The buildings recorded are considered to represent the historical development of Kudus architecture, including the Hindu period, the Chinese-influenced period, the Islamic period, and the colonial period. However, the method for selecting particular buildings is unclear. Selected sites include the Menara Complex and Kauman quarter. Selected traditional timber houses are an important part of this survey. Other architectural objects recorded are a number of historic mosques and cemeteries such as the "destroyed mosque", Ngangukwali Mosque, Jepang Mosque, and the burial site of Prince Puger, as well as a number of houses and shops exhibiting Chinese or European influence in their architectural styles. The photographs, diagrammatic drawings, and architectural sketches presented in this study constitute a valuable document.

A survey which aimed to prepare a preliminary list of timber houses was carried out by the local government of Kudus Regency through the Office of Tourism, following

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<sup>84</sup> Hasan Muarif Ambary, et.al, 'Laporan Survey Kudus 1976' (Report of Kudus Survey, 1976) and Laporan Ekskavasi Kudus' (Report of Kudus Excavation, 1976), *Berita Penelitian Arkeologi*, No. 14A/14B, Pusat Penelitian Purbakala dan Peninggalan Nasional, Jakarta, 1977.

<sup>85</sup> Wastuwidyanan (firm), *Data Arsitektur Tradisional Kudus* (Data of Kudus Traditional Architecture), Semarang, 1986.

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<sup>85</sup> Wastuwidyan (firm), *Data Arsitektur Tradisional Kudus* (Data of Kudus Traditional Architecture), Semarang, 1986.

## **(2) Heritage Studies**

A number of studies in a variety of disciplines have been carried out on the subject of Kudus heritage and settlement. To date, there has been no architectural study which examines the old town of Kudus as a whole entity, and assesses its value as an ensemble of heritage structures.

The art history study carried out by J. E. Jasper in the early 1920's is the first study revealing an awareness of the value of the architectural heritage of Kudus.<sup>91</sup> Jasper described the urban structure, architecture, the elaborately carved timber houses, and the decorative art of Kudus. Previous archaeological and historical studies carried out by non-Indonesian scholars, particularly the Dutch, in the late nineteenth and early twentieth centuries, focussed on archaeological remains and ancient monuments.<sup>92</sup>

A socio-economic study was carried out by Lance Castles in the mid-1960's. As this study focussed on the religion, politics, and economic behaviour of the people of Kudus, Castles only briefly mentioned the architectural heritage. He described the town of Kudus as having two parts : one part showed a distinct character in its urban structure, architecture, and Middle Eastern Islamic dress, while another part had an urban pattern typical of other Javanese towns.<sup>93</sup>

Research studies by staff and students of some national universities have concentrated either on the timber houses, the residential quarters, or the monuments. Those which are concerned with the monuments focus only on the Menara Complex, which consists of Menara Kudus, al-Aqsa Mosque, and Sunan Kudus' cemetery. An architectural study concerned with Kudus traditional timber houses was carried out by a team of students from Tarumanegara University.<sup>94</sup> This study describes the shape and form, symbolic aspects, spatial organisation, functions, architectural elements, details, ornaments, materials, and the construction techniques. It also briefly compares the spatial organisation of the traditional houses of Kudus with that of Javanese houses in general. This study also presents measured drawings of two houses, the

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<sup>91</sup> Jasper, op.cit.

<sup>92</sup> Archeological and historical studies on Kudus was carried out among others by J. F. G. Brumund, Knebel, N. J. Krom, H. J. de Graaf and Th. G. Th. Pigeaud, G. F. Pijper and B. Kempers, as mentioned in Jasper, op.cit.; Solihin Salam, *Kudus Purbakala dalam Perjuangan Islam*, Menara, Kudus, 1977, pp. 13-4 ; Syafwandi, *Menara Mesjid Kudus dalam Tinjauan Sejarah dan Arsitektur*, Bulan Bintang, Jakarta, 1985, p. 4.

<sup>93</sup> Castles stated that the first half of the town faintly recalled Syria or Egypt. See Lance Castles, *Religion, Politics, and Economic Behavior in Java : the Kudus Cigarette Industry*, Cultural Report Series No.15, Yale University Southeast Asia Studies, New Haven, Detroit, 1967, pp. 41-2.

<sup>94</sup> Research Team of Faculty of Engineering Tarumanegara University, *Penelitian Anatomi Rumah Adat Kudus* (Research on the Anatomy of the Kudus Traditional House), Tarumanegara University, Jakarta, 1988.

house of Haji Saleh Syakur on Demakan quarter, considered to be the most complete and beautiful, and an "empty" translocated house displayed in the front yard of the Kretek Museum. This study enhances the understanding of the architecture of Kudus timber houses through descriptive rather than analytical methods. The description, moreover, focuses on the timber houses as individual buildings rather than considering the urban and architectural patterns of an historic district.

A historical study carried out by Darban of Gadjah Mada University discusses the typology of Islamic residential quarters known as kauman.<sup>95</sup> It examines the formation of these quarters and their traditional Islamic communities from an historical and socio-economic viewpoint. By comparing the development of two Islamic residential quarters in Kudus and Yogyakarta, this research identifies the origin of the kauman quarter of Kudus, which today comprises Kauman, a part of Langgardalem, and a part of Kerjasan quarters. It also identifies a strongly Islamic religious way of life and a sound spirit of entrepreneurship among those native to Kudus. This study may therefore have contributed to an understanding of the culture and form of the residential quarters.

Three other studies have been produced which are concerned with architectural monuments of the old town of Kudus. The first of these is an architectural study of the Menara Complex undertaken by a research team of Gadjah Mada University. This study compares three religious complexes in the towns of Demak, Kudus, and Jepara, in terms of their architectural configurations.<sup>96</sup> As the original centres of the towns, each complex contains a mosque, a cemetery of the founder of the town, a number of outbuildings, and, except for the one at Jepara, a minaret. This study discusses the syncretic character of the early Islamic Javanese architecture, that is, the integration of indigenous Javanese, Hinduistic and Islamic ideas in the architectural elements. It affirms that the amalgamation of these ideas is expressed in the geographical position and orientation, spatial organisation, building morphology, architectural details, colours, and ornaments. Another study investigating the archaeology of the minaret was carried out as a final thesis by a student at Faculty of Letters, University of Indonesia.<sup>97</sup> This study examines the

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<sup>95</sup>Ahmad Adaby Darban, *Kampung Kauman, Sebuah Tipologi Kampung Santri di Perkotaan Jawa* (Kauman Quarter : A Typology of Islamic Quarters in Javanese Towns), Faculty of Letters, Gadjah Mada University, Yogyakarta, 1984.

<sup>96</sup>Ismudiyanto & Parmono Atmadi, *Demak, Kudus, Jepara Mosques : a Study of Architectural Syncretism*, Department of Architecture, Faculty of Engineering, Gadjah Mada University, Yogyakarta, 1987. (under a visiting professor programme of the University of Wisconsin, Milwaukee)

<sup>97</sup>This study was published as : Syafwandi, *Menara Masjid Kudus dalam Tinjauan Sejarah dan Arsitektur* (the Minaret of Kudus in Historical and Architectural Review), Bulan Bintang, Jakarta, 1985.

minaret from both archaeological and architectural viewpoints. It discusses the history, geographical position, function, architectural style, and construction techniques, as well as the estimated date of construction. The relationships between the minaret and other buildings in the Menara complex, are also discussed. Measured drawings of the minaret are included. A third study considers al-Aqsa Mosque as part of a larger study of religious architecture in Central Java. It describes the spatial organisation and building form in a brief, descriptive discussion.<sup>98</sup>

Prior heritage studies have contributed to an understanding of the cultural values of Kudus heritage, but fall short of providing directions for architectural heritage protection programmes. The emergence of articles about Kudus heritage in a number of newspapers and magazines shows that these studies have raised public awareness of the subject at local, regional, and national levels.<sup>99</sup> Involvement by the government and practising professionals such as town planners and architects, however, is still lacking.

### **(3) Conservation actions**

The proposed Menara Tourism Area Development project, prepared by the local government of Kudus Regency, may prove to be the most important action for the protection of the historic districts mentioned in this study. This project, which considers an area comprising Menara Complex, Madurekso Complex, and the traditional residential quarters, has been instituted under the Public Housing and Building Structure Development Project.<sup>100</sup> The aim is to develop the historic Menara area as a clean and attractive tourist and pilgrim destination.

The project has three primary objectives. First, the original boundary of Menara Complex will be re-established and restored, with reference to the findings of the National Research Centre for Archaeology 1976 and Syafwandi in 1985. This will include compensation to those whose houses cross the boundary. Second, the project includes the protection of timber houses surrounding the Menara area, particularly those in Kauman, Langgardalem, Kerjasan, Demangan, and Janggalan quarters. The National Department of Education and Culture and the Decree of the Regent of Kudus has designated these quarters as the historic centre of Kudus. Finally, the project provides for the development of Madurekso Complex as a tourist centre. This

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<sup>98</sup> Wiranto, et al., *Ekspresi Arsitektur Bangunan Ibadat di Jawa Tengah* (Architectural Expression of Religious Buildings in Central Java), Research Institute of Diponegoro University, Semarang, 1991.

<sup>99</sup> Clippings of newspapers and magazines collected by the Kudus Regency Office of Tourism.

<sup>100</sup> Interview with Mr. M. Bunyamin, staff of Kudus Regency Office of Tourism, 12 and 14 February 1993.

will include the redesign of the parking space, the construction of a convention building, and visitor accommodation.

This town beautification project seems to be the first comprehensive programme carried out in Kudus incorporating conservation concerns. Any planned involvement of heritage experts and the community is not clear at this stage. Statutory and enforcement mechanisms also remain unclear. Although this project still remains a plan in the 1993-1994 budget year, its preparation shows the positive attitude of the government of both Kudus Regency and Central Java Province towards a more conservation-oriented planning process. It reflects a consideration of entire historic communities as a living architectural heritage worthy of conservation.

A subsidy programme introduced in 1978 was probably the first concrete action taken by the government in an attempt to safeguard Kudus' architectural heritage. A monthly subsidy to provide for basic maintenance was given to owners of selected timber houses.<sup>101</sup> This programme, administered by the Kudus Regency Office of Tourism, was hampered by insufficient legal and financial power. Participation was on a voluntary basis, and the subsidies represented only a part of owners' real maintenance costs. When the programme was put into effect, therefore, most owners of selected houses refused to participate, or cancelled their participation after a short period. Homeowners resented government supervision over their properties and found public visits intrusive.

The subsidy programme had an unexpected negative impact. The growing public awareness of the cultural heritage value of the timber houses of Kudus led to many being sold as movable works of art. In the early 1980's buyers from Jakarta, Semarang, and even Singapore began purchasing and removing beautifully carved timber houses from their original sites in Kudus. High prices reflect the prestige wealthy urbanites attach to displaying whole houses or selected architectural elements in larger residences. Houses of varying quality have been sold and removed within the last decade, leaving empty lots at the original sites and encouraging the construction of incompatible contemporary style houses on these sites. This practice, while one form of conservation, ignores the contextual aspects of the architecture, and causes the destruction of traditional communities. However, socio-economic constraints have made this process very difficult to prevent.

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<sup>101</sup> Interview with Mr. M. Bunyamin, Staff of Kudus Regency Office of Tourism, 12 February 1993.

The government of Kudus Regency further tried to prevent timber house sale and removal through the passage of a local ordinance of the Regent of Kudus in 1983.<sup>102</sup> This ordinance calls for the protection of Kudus timber houses and states that alteration, removal, and sale require the permission of the government of Kudus Regency. This initiative was a direct response to the failure of the subsidy programme. Its passage, however, was finally triggered by a policy statement by the Governor of Central Java Province proclaiming Kudus as a town with a strong sense of identity and calling for actions to conserve its architectural heritage.<sup>103</sup> This policy stated that urban and community development should be based on the idea of maintaining the sense of identity formed by an area's local cultural heritage.<sup>104</sup>

The 1983 ordinance of the Head of Kudus Regency was apparently not supported by further technical and legal mechanisms, i.e. assigning a particular office the responsibility for permits, establishing criteria for issuing permits, and designating sanctions to be imposed if violations occurred. In practice, therefore, this ordinance was ineffective. In fact, in four cases the Head of Kudus Regency and the Kudus Regency Office of Tourism granted formal permission to sell and relocate timber houses following consultations with Central Java Provincial government. The government gave permission in these cases because the buyers -- leading companies and a well-known businessman -- gave a formal undertaking the houses would be well-conserved and open for public visits.<sup>105</sup> On 10 June 1985, for instance, the timber house of Haji Ali Faiz family located on Sunan Kudus Street, Kauman quarter, one of the best architectural examples remaining in the district, was moved to be reconstructed on a new site in Jakarta.<sup>106</sup> The buyer was a private individual. The three other houses were all on Menara Street and in Langgardalem quarter. The house of Abdullah Noor located on Menara Street was sold to Kompas-Gramedia, a leading publishing company in Jakarta in 1984, and the houses of Suaidah and Djaelani in Langgardalem quarter were both sold to Djarum Kudus, a leading clove-cigarette

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<sup>102</sup> *The Instruction of the Regent of Kudus No.464.4/4700*, 1 August 1983 : the protection of Kudus timber houses.

<sup>103</sup> The Governor proclaimed four towns in Central Java as having a strong sense of identity; Semarang : capital city with its colonial architecture, and a rapid economic and technological development; Surakarta : a former kingdom with its palace, colonial architecture and refined Javanese culture; Wonosobo : a rural hilly town with its rich natural heritage; and Kudus : an Islamic old town with its traditional buildings and religious community. See : Semarang, Surakarta, Kudus, Wonosobo, *Proyek Contoh Identitas Kota : bangunan-bangunan kuno perlu dipertahankan* (Pilot Project of Towns with Identity : old buildings should be conserved), *Suara Merdeka* daily newspaper, July 14, 1983.

<sup>104</sup> 'Kita membangun berdasarkan kepribadian sendiri' (We develop based on our own identity), editorial, *Suara Merdeka*, 15 July 1983.

<sup>105</sup> Documentation of Kudus Regency Office of Tourism

<sup>106</sup> 'Rumah adat Kudus terbaik diboyong ke Jakarta' (One the best Kudus timber houses was moved to Jakarta), *Suara Karya*, 11 June 1985.

manufacturer in Kudus in 1985.<sup>107</sup> Other sales and removals have occurred since the passage of the ordinance; apart from these four special cases, people sold their timber houses illegally through brokers with no prior notification to the government.

The removal of a house by Kompas-Gramedia to Jakarta in 1984, received government permission. The house was translocated from Langgardalem quarter to Bentara Budaya in Jakarta, the office complex of Kompas-Gramedia. Adapted and expanded for exhibition, convention, and other cultural events, the completed project is known as Bentara Budaya cultural complex.<sup>108</sup> The house is well-maintained by Kudus-born staff who clean it with a traditional mixture of essence of clove and tobacco mixed with water.<sup>109</sup> The complex is educational for students and the general public in Jakarta and its surroundings, as well as visitors from abroad. Its negative effect on Kudus is obvious.

A second legislative initiative of the Regency government, motivated in part by the failure of the 1983 conservation order to limit the removal of historic timber houses, was a scheme in which the government itself purchased a timber house. In this 1985-1986 scheme, the Regency proposed to purchase a good example of a timber house for relocation to a new site in Kudus for public display. The aim was twofold: to ensure the proper preservation of one timber house in Kudus in the face of continuing removals, and to open this house for visitors without disrupting the lives of residents of traditional residential districts.<sup>110</sup> A shortage of government funds and the absence of an appropriate new site meant that this idea could not be realised without partnerships with private industry. This led to collaboration between the government of Kudus Regency and a local cigarette manufacturer in translocating a timber house from Kauman quarter to Museum Kretek, in conjunction with the construction of this museum.

In addition to its financial advantages, partnership with private companies allows for shared responsibility for conservation and maintenance. The initiative of the local government apparently coincided with the idea of PPRK (*Persatuan Pengusaha Rokok Kretek Kudus* : Clove Cigarette Manufacturers Union of Kudus) to build a museum devoted to the development of the clove-cigarette industry. Djarum, one of

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<sup>107</sup> Report of the Head of Kudus Regency Office of Tourism for the Regent of Kudus on the inventory of sold timber houses, 14 January 1986.

<sup>108</sup> *Rumah Kudus* (Kudus House), booklet, Bentara Budaya, Jakarta, undated.

<sup>109</sup> 'Pencuci rumah Kudus' (Cleaners of Kudus house), *Intisari* monthly popular-scientific magazine, January 1993, pp. 124-130.

<sup>110</sup> 'Belum menjadi kenyataan: pemilik rumah bila akan menjual harus minta ijin Pemda' (No concrete action : owners must seek government permission prior to selling their houses), *Suara Merdeka*, 12 January 1984.



the four leading clove-cigarette manufacturers united as the PPRK, therefore, bought a timber house from Kauman quarter and translocated it to the front yard of Museum Kretek which was opened in October 1986.<sup>111</sup> The house chosen was of average architectural quality and cost its sponsors 300 million rupiahs. As PPRK built the museum, Djarum donated the timber house, and the government of Kudus Regency appointed the Office of Tourism to be in charge of its maintenance. As no appropriate cultural activities have since been held in the building, this house has been exhibited as an object which is part of the museum collection, rather than as part of the living architectural heritage. The house is displayed in the grounds of the Museum.

A second ordinance addressing the conservation of timber houses was introduced by the local government of Kudus Regency in 1988. This was the issue of the Decree of the Regent of Kudus concerning permission for the sale and alteration of timber houses, which was put into effect in 19 September 1988.<sup>112</sup> This order contains four provisions:

- (1) the establishment of an advisory group for the sale and alteration of timber houses;
- (2) the identification of terms of reference for the group which terms include the examination of timber houses prior to sale and alteration in terms of both physical condition and cultural value, the examination of the motivation of both sellers and buyers, and the provision of advice for the Head of Kudus Regency in considering permission for the sale and alteration;
- (3) the giving of a mandate from the Head of Kudus Regency, to whom the group is responsible; and
- (4) the decision that all expenses in the realisation of the decree will be borne by the budget of the government of Kudus Regency.

As the group is consultative and has no legal powers, its actions are limited in practice to the examination of houses, the preparation of reports to the Regent of Kudus, and the provision of advice for house owners. The absence of supporting legal means and the lack of supervisory mechanisms have made the group incapable of preventing the frequent sale and incompatible alteration of timber houses.

The 1993 construction of a Kudus pavilion in the Central Java Miniature Park may make some educational contribution to the safeguarding of timber houses in Kudus. Despite the actual objective to provide an attraction for tourism development and

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<sup>111</sup> Interview with Mr. Afif Masluri, the Chief Manager of Museum Kretek, 21 January 1993.

<sup>112</sup> *The Decree of the Head of Kudus Region No.188.4-181.2/869/1988.*

public education, the construction of this pavilion has proved that the existence of skilled, experienced woodcarving artists such as Buchori is essential in safeguarding traditional Kudus architecture. The skill provides for the repair of damaged buildings, both in terms of restoration and reconstruction, as shown in the activities of Buchori's workshop and a few others' in Kudus. It also allows for building reproductions and the creation of new traditional architecture. According to Buchori, dedication to safeguarding traditional craftskill is for him as important as the commercial aspects of the trade.<sup>113</sup> Few woodcarving workshops can be found in Kudus today. Most originally acted as antique shops selling architectural salvage. Gradually they evolved into repair shops and finally into complete workshops. Highly skilled carvers are very rare; Buchori is unique in the trade.

The traditional *waqf* institution contributes independently to the maintenance of mosques and religious complexes, and presents special opportunities and problems. *Waqf* properties are owned and maintained by local or surrounding communities. This traditional social and financial mechanism for maintaining mosques and religious complexes, has apparently not been considered in government conservation actions, although it could potentially contribute to community participation in heritage conservation. Initial conservation efforts in Kudus have focussed largely on the protection of its timber houses rather than its religious sites. The Menara Complex, which has been the subject of several studies, has not been considered in legislative ordinances, perhaps because of the independent existence of *waqf*. The complex, however, has been maintained in good physical condition. It has been maintained by Kauman community, based both on its status as a *waqf* area and its history as a land parcel given by Sunan Kudus to his pupils and followers. Three community organisations are responsible for the maintenance of the three divisions of this complex : al-Aqsa Mosque and the religious school, Menara Kudus, and the cemetery of Sunan Kudus. They are also responsible for managing the need of pilgrims and guests of Menara Complex.<sup>114</sup> Al-Aqsa has suffered inappropriate alteration.

Langgardalem Mosque is another significant public building which has been continuously maintained by Langgardalem community and is also in good physical condition. Madurekso Mosque, which is located on Madurekso Square, is a problematic case in the relationship between *waqf* organisation, government and conservation. This mosque has never been considered as architecturally significant, probably due

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<sup>113</sup> Interview with Mr. Buchori at his workshop, 12 February 1993; and at the site of Kudus pavilion, 16 February 1993.

<sup>114</sup> Interview with Mr. Mashuri and Mr. Nafian, the Vice Head and Secretary of Kauman quarter, 21 January 1993.

to its small scale and poor physical condition. Although the mosque is administratively a part of Kerjasan quarter, it has been regarded as a part of the square; this means it is a part of public facilities for pilgrims and visitors. Kerjasan community consider themselves not to be responsible for its maintenance, because they never use Madurekso Mosque as a communal facility. Inappropriate alteration has considerably affected al-Aqsa, Langgardalem, and Madurekso mosques due primarily to the lack of popular knowledge of archaeology and architecture. The addition of new verandas, new bathing places and new fences, for instance, has disturbed architectural elements and archaeological remnants in mosques and religious complexes, a fact which has apparently not been considered in government conservation actions.

Most squares and streets are owned and maintained by the regency government. Madurekso Complex is administratively part of Kerjasan quarter, although physically closer to Kauman and Langgardalem. Kerjasan community consider it their right to share the management of the square, although they are not involved in its maintenance.<sup>115</sup> A proper management mechanism shared between the regency government and the Kerjasan community has never been put in place; such a mechanism is required for effective use and maintenance of the complex. Madurekso Square has been converted as a parking space for pilgrims and visitors under the responsibility of the regency government. A number of public facilities, such as a library, a bus shelter, public toilets, an artists club, a crafts cooperation shop, and food-stalls have been built in this square.

This review indicates the need for a government programme which involves the community, considers districts and urban spaces as a whole rather than focussing on individual houses, incorporates the essential skills of traditional craftspeople, takes advantage of existing studies and surveys, and contains policy and funding mechanisms which can make conservation of this vital traditional community a reality.

### **3.2 Towards an Appropriate Model**

In order to safeguard the architectural heritage of the historic Islamic district of Kudus, an appropriate conservation model must be developed as a basis for conservation actions. This model can be adapted to other Indonesian towns, particularly those in Java. Prior to describing this model, issues and constraints are identified. Strengths, weaknesses, opportunities, and threats pertaining to conservation pro-

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<sup>115</sup> Interview with Mr. Muchlas Ashari, the Head of Kerjasan quarter, 28 January 1993.

grammes in Kudus are also considered, so that the requirements of an appropriate model can be understood.

### **3.2.1 Issues**

A number of conflicting issues need to be taken into account when considering the conservation of the architectural heritage of an historic Indonesian district. The issues discussed are not only specific to Kudus but also apply in other towns in Indonesia. Particular issues (such as points 9 and 12), however, relate more specifically to the case of the historic Islamic district of Kudus. The first nine issues deal with approaches towards architectural conservation, whereas the other three relate to limited resources.

**(1) Grand monuments vs. traditional habitats.** There appears to be a greater willingness to conserve grand monuments than traditional habitats. While grand monuments are seen as important because of their noticeable cultural identity, popular prestige, and tourist appeal, and ability to attract international recognition and funding, traditional habitats are seen as less important. These traditional habitats, however, are of equal cultural significance as invaluable examples of living heritage.

**(2) Individual objects vs. urban context.** Living urban settlements still seem to be excluded from consideration as cultural heritage. Even professional understanding of cultural heritage appears to be limited to individual objects, such as buildings, archaeological remnants, and movable artifacts. There is general ignorance of the importance of these objects in the formation of urban structure and urban character as a whole and, conversely, of the importance of the historic urban environment as a context for these objects.

**(3) Concrete value vs. abstract value.** A dilemma emerges in the establishment of prime criteria for the selection of places for conservation. This dilemma is between aesthetic values, which are based on visual expression, and other, equally important, but more abstract criteria, such as historic, symbolic, social and scientific values. In fact, it seems that visual expression is given priority over all other values. This may be due to its concreteness, which is easier for the general public to comprehend. This leads to the focussing of popular attention on grand-scale monuments as well as other elaborately ornamented buildings, rather than humble, but culturally significant places, i.e. narrow and crowded streets, untidy squares, narrow paths, vernacular residential quarters, or untidy dense urban areas.

**(4) Traditional urban structure vs. contemporary technology.** Products of contemporary technology, including motor vehicles, electricity, and telecommunication networks, were inevitably introduced to the traditional urban structure in order to meet contemporary needs. This results in the widening of streets which is always followed by construction of new facades which replace the original ones, introduction of electricity and telephone poles, as well as provision of parking spaces. If the introduction of these products of technology is not handled carefully, the character of the traditional urban structure is disturbed.

**(5) Static protection vs. dynamic conservation.** Popular understanding of the safeguarding of an architectural heritage still largely focusses on static protection rather than dynamic conservation. Misunderstanding often occurs when the safeguarding is interpreted as maintaining places in a prior state. This static protection can be relevant in the preservation and restoration of heritage as an artifact for display. In the case of the architectural heritage, this static protection may lead to obsolescence, if built form does not adapt to socio-economic and technological changes. Dynamic conservation may be a more appropriate approach to living architectural heritage. Dynamic processes include maintenance, reconstruction, and adaptation to new compatible uses.

**(6) Conservation project vs. new new design project.** Practising professionals in town planning and architecture generally claim that conservation projects somehow deprive them of their right to architectural creativity. In fact, conservation solutions require even higher skill and creativity than new design solutions. Being an architect- or planner-conservationist does not necessarily mean being conservative. On the contrary, as conservation projects require careful consideration and farsighted vision through the integration of conservation, planning, and design principles, being a conservationist means being progressive.

**(7) Fake purity vs. genuine continuity.** Without careful consideration, a conservation approach can fall into fake purity of design rather than genuine continuity. An approach of purity attempts to be exact in order to represent particular known or assumed earlier styles and details, whereas that of continuity tries to honestly reflect changes in style and details over a period of time. While purity, taking particular care not to fall into the danger of "earlying-up" a design, may be acceptable for static conservation requirements, i.e. house museums, continuity may be more relevant for other dynamic conservation processes. As the former may be most suitable for restoration processes, the latter would be more flexible for reconstructions and adaptations.

**(8) False imitation vs harmonious combination.** The process of new construction in an established historic area raises the problem of fitting new structures into an older context. If not handled carefully, this can lead to an arbitrary copy which may express a false imitation of the past rather than a contemporary design which expresses its own time. Producing a true copy needs a sound understanding of earlier styles and details, as well as materials and methods pertaining to the old structures. This, however, is hardly possible, largely due to the lack of knowledge and skill of the earlier period. The copy, therefore, may result in a detraction from the true quality of old structures. It will also detract from the historic record in that it will appear to be old when it is not. Creating a contemporary construction, on the other hand, requires a clear determination of criteria of compatibility, which incorporates both spatial and visual performance, including massing, setback, height, size, scale, materials, colors and textures. If carried out successfully, however, a contemporary design may create a harmonious blend with the surroundings, as well as enhancing the patina of the old surrounding by contrast.

**(9) Religious pilgrimage destination vs. tourism industry development.** The potential of Kudus to be a religious pilgrimage destination and a commercial tourist destination could raise a conflict of interest if not handled carefully. A careful strategy, on the other hand, may lead to mutual development programmes. As an historic pilgrimage destination, the area presents a traditional environment with a religious atmosphere which creates its own sense of place, in addition to regular religious rituals, ceremonies, and festivals. This sense of place and religious events could enhance the potential to attract other visitors. The coming of other visitors, moreover, could invite the development of the tourism industry, which in turn, may result in the partial provision of financial resources needed for conserving the architectural heritage of this historic place.

**(10) Architectural conservation vs. socio-economic improvement.** There seems to be a prevailing view that conservation of architectural heritage is a low priority in the development process. Socio-economic improvement is, in fact, inevitably the top priority in a developing country such as Indonesia. The development of public housing, public health, education, commercial facilities, and traffic, therefore, constitute major concerns at national, regional, and local levels. Architectural conservation thus occupies a lower position in government priorities.

**(11) Limited living space vs. rapid population growth.** Rapid population growth puts pressure on the urban structure in terms of available space and infrastructure. The historic Islamic district of Kudus is an urban form which was originally compact

in character, and provided for a previous way of living differs from today's lifestyles. This district has become much more dense not only in terms of spatial structure and infrastructure, but also population. The shortage of living space has led to a decrease in spatial quality. Compromises with regard to this inconvenience, such as alterations of spatial organisation, changes of architectural or structural elements, and construction of further buildings has, therefore, been required in order to meet the needs of the increasing population.

**(12) Socio-economic pressures vs. architectural heritage protection.** Socio-economic pressures suffered by inhabitants of historic areas create threats to their architectural heritage. With a low level of average income, these residents are unable to afford the high maintenance cost of their dwellings. The urban fabric faces an unavoidable problem of physical decay. This problem is, furthermore, enhanced by the attraction of contemporary environments. They are regarded as more modern and low in maintenance requirements. In the Kudus case, the high cash value of timber houses provides an added impetus to re-locate. Difficulties in dividing a heritage property as family inheritance to a large number of descendants, in addition, usually encourages the sale of the property. The specific character of the Kudus architectural heritage, which allows houses to be easily dismantled and re-assembled, provides a greater likelihood of demolition or removal. These people do not realise that they are gradually destroying their own architectural heritage.

### **3.2.2 Constraints**

Based on the above issues, a number of practical constraints can be identified. These constraints are applied specifically to the Kudus case, but they reflect broad constraints which apply throughout Indonesia.

**(1) Shortage of financial resources.** The pressures of other priorities, i.e. socio-economic development programmes, are immense. Thus, government funding, either the national government of Indonesia, the regional government of Central Java Province, or the local government of Kudus Regency is an unreliable source of funds for the conservation of Kudus. Some financial resources may be obtained from the local government budget for tourism development, since tourism programmes receive sufficient attention and have good prospects in Kudus. Incorporating conservation programmes in tourism development may, therefore, partly provide the necessary financial resource. Kudus urban development programmes such as town beautification may also incorporate architectural conservation and hence provide further funding. These government resources, however, are not sufficient to cover

the required budget. Additional financial resources could possibly come from the local private sector. Businesses, particularly the large clove-cigarette manufacturers and the textile and printing manufacturers, have already contributed to Kudus urban development. Funds from international aid agencies, either indirectly through international aid for national development or directly through international programmes for architectural conservation, may be the most realistic possibility.

**(2) Insufficient national political will.** Since planning and development programmes rarely take architectural heritage protection issues into consideration, there is insufficient political support for the conservation of Kudus' architectural heritage, particularly from the Indonesian government at the national level. This may be caused by the prominent focus of national development on socio-economic improvement and evenly-distributed prosperity. According to this political view, moreover, contemporary development achieved from commercial enhancement and technological advancement is generally regarded as more prestigious than architectural conservation. Growing political support has recently come from the regional government of Central Java Province and the local government of Kudus Regency, and provides a better prospect for Kudus conservation programmes. Commitment at the National level, however, is still urgently needed to promote Kudus nationally and internationally, and promote concern for the architectural conservation of other historic towns in Indonesia.

**(3) Lack of legal provision for architectural conservation.** Laws governing architectural conservation are insufficient largely due to gaps in legislation and legal mechanisms at the national level. The recently passed National Law on the Protection of Cultural Heritage does not provide a clear guide to the practice of architectural conservation. Detailed regulations are needed before this law can be applied to cases effectively. Letters of instruction calling for the need to protect Kudus' architectural heritage which have come from the Director General of Culture Department of Education and Culture and the Regent of Kudus have not been accompanied by supporting legal means. A local edict, the Decree of Kudus Regent, establishes an advisory group which is in charge of the examination and evaluation of timber houses, the provision of advice for house owners, intended buyers, and the Kudus Regent prior to sale and alterations of Kudus timber houses. These tasks, however, are merely consultative in nature, with neither legal power nor sufficient control mechanisms to enforce compliance. In practice, this group is incapable of working effectively to prevent the continuous sale and removal of houses.



**(4) Less significant role of taxation.** Taxation in the currently residential area of the historic old town of Kudus only returns a small government income. A number of taxes have been introduced in the residential quarters of the historic Islamic district, comprising real estate tax, land tax, property tax, and income tax. The low average standard of living and low income of the inhabitants, with only a few exceptions, results in low property tax and income tax. Standards for real estate tax and land tax are as low as those applied to other ordinary residential areas having a low economic development rate. The cultural significance of the historic district, accordingly, does not affect the current taxation levels. Kauman quarter, moreover, is at present subject to tax exemption, due to its status as a *waqf* area. This *waqf* area having special tax exemption originally included Langgardalem and Kerjasan quarters, before it was reduced by the Dutch colonial government to cover only Kauman quarter. The urban development process and architectural conservation programmes of this historic area, therefore, cannot depend on local taxation as a source of funding.

**(5) The lack of coordination among authorities.** The lack of coordination, enhanced by unclear responsibilities and weak control mechanisms among personnel involved, leads to ineffective conservation of the Kudus architectural heritage. Studies and programmes have been carried out separately, with no mutual cooperation and information exchanges among authorities or agencies involved. This results in redundancy of topics and areas examined, uncoordinated findings and disjointed actions. An intention to eliminate these problems is demonstrated by the formation of the conservation advisory group which involves personnel from a variety of agencies. This architectural heritage conservation team includes government staff representing public administration, tourism, education and culture, public wealth, economics, law, public works, and regency planning offices. Comprehensive coordination among all government sectors, however, is still lacking, as are integrated planning processes which incorporate architectural heritage conservation. Coordination needs to be expanded to include mutual cooperation and information exchange with academic institutions, i.e. universities and research bodies. The only study involving a university appears to be the historical research to establish the birthday of Kudus conducted in 1992. In most cases, therefore, problems of weak coordination still appear to prevail.

**(6) Weak administrative mechanisms.** A strong administrative mechanism is needed for carrying out successful architectural conservation programmes in Kudus. The administrative mechanisms are weak at present due largely to the lack of qualified staff who have sufficient knowledge of architectural heritage issues and prac-

tice. Knowledge of conservation procedures and a moral commitment to the conservation process are necessary qualifications. Insufficient administrative coordination among government departments, offices, and personnel, moreover, results in overly narrow focus by government staff undertaking conservation.

**(7) The shortage of personnel resources.** The shortage of qualified experts may be due to the fact that the architectural conservation movement in Indonesia is generally still in its initial stages. Education and training is urgently needed to improve knowledge and skill in the field of architectural conservation. The scope of architectural conservation must be extended beyond single landmarks and museums. In particular, the scope of architectural conservation in Indonesia still does not reflect a concern for living traditional habitats and historic urban structures. This means, therefore, that multi-disciplinary teams, including professionals from relevant disciplines; i.e. architects, planners, historians, archaeologists, sociologists, economists, tourism experts, and legal experts, as well as government administrators and decision-makers, and fund raisers, need to be formed.

**(8) Insufficient documentation of information and materials.** Insufficient research documentation concerning the architectural heritage of Kudus, particularly regarding the historic Islamic district, has caused a lack of reliable information and materials, i.e. historical records, town development records, and architectural inventories. This type of information is of paramount importance for further studies and the preparation of a conservation plan. Historical records available are mostly local history focussing on the figure of Sunan Kudus, the founder of the town. This historical information, moreover, contains a number of legends which cannot be substantiated. There are no graphic records or written texts which can explain the historical process of Kudus town development. There are also no aerial photographs of the area. Even detailed current maps of Kudus, particularly its old town and historic district, are not available. An architectural inventory has only been undertaken once, and is broad and preliminary in character. These problems, moreover, are made worse by the lack of systematic documentation. The few papers and reports carried out seem to remain scattered at many different authorities and agencies. Some are often missing, due probably to carelessness in archive management. This results in difficulties in gathering data for research purposes and publication.

**(9) Limited publication.** Publications pertaining to the significance of the architectural heritage of Kudus, particularly of its historic district, are very limited. In addition to the shortage of financial resources, this may be due to the lack of recognition that publication is essential to gain both public and private support for heritage con-

servation. The few publications carried out for tourism purposes are commercial in character, and emphasise new constructions and tourist destinations, rather than culturally significant and genuinely historic places. This has led to a narrow, popular understanding of the cultural values of Kudus architectural heritage. Internationally, Kudus is almost always associated with its distinct ancient minaret. Nationally, Kudus is well-known for its historic mosque and its beautiful timber houses. The city is also famous as an Islamic pilgrimage destination and as a centre of the clove-cigarette industry. Regionally, Kudus is popularly recognized for its home industries -- embroidery and specific foods -- as well as the natural heritage of Mount Muria. The value of the historic Islamic district as an intact old town, therefore, remains largely unrecognised.

**(10) Lack of involvement of architectural practitioners.** Architectural practitioners tend to prefer undertaking the design of new buildings and new sites rather than conservation work. The latter is generally believed to be more difficult for it requires more careful consideration prior to decision making. The only involvement of practitioners was probably in the preparation of architectural data of traditional buildings of Kudus undertaken in 1986, which included a brief historical review and a broad inventory. Conservation work involves a large number of constraints and requires creative solutions. It is of the utmost importance to encourage architects to be involved in the architectural conservation processes of maintenance, preservation, restoration, reconstruction, and adaptation. Awareness and understanding of the significance of a place is primarily required in undertaking these processes, as well as in designing new buildings in culturally significant places.

**(11) Limited current popular understanding.** The popular understanding of the architectural heritage of Kudus is largely limited to grand landmarks, preserved museums, individual beautiful buildings, and architectural and archaeological remnants. This covers only landmarks i.e. the Menara Kudus and al-Aqsa Mosque, preserved museums i.e. the Kretek Museum, beautiful buildings i.e. the few remaining timber houses, a mixture of architecture and archaeological remnants, i.e. Langgardalem, Jepang, and Ngangukwali mosques, and archaeological remnants such as the "destroyed mosque". Other places such as the cemetery of Sunan Kudus and the burial site of Kyai Telingsing are regarded as sacred sites of mere religious value rather than architectural. This limited understanding restricts the popular awareness of the significance of the urban structure and architectural character of the old town of Kudus as a whole historic Islamic district. It is of prime importance to foster a new view that the architectural heritage of Kudus includes houses, streets, paths and squares as a living historic urban habitat.

**(12) Limited popular appreciation.** This limited understanding leads further to a limited appreciation of the architectural heritage of Kudus. Contemporary buildings in the newer districts of Kudus are generally regarded as superior to the indigenous and traditional ones in the historic Islamic district. There is also greater appreciation of contemporary urban structures which are believed to be more suitable for a contemporary way of life than old town structures found in the historic district. In addition, people tend to appreciate only a few of the remaining beautiful timber houses as invaluable to the architectural heritage and, consequently, ignore the rest which are less beautiful and less elaborate but may be of equal cultural significance.

**(13) Incapability of house owners to afford maintenance cost.** Socio-economic pressures faced by the people of the historic district, the fragile nature of Kudus timber houses, the tropical climate, and the polluted urban environment of the district appear to have led to the inhabitants being unable to afford the high cost of proper maintenance of the timber houses. Elaborately carved timber elements and the porous nature of the timber make Kudus houses very fragile. The tropical climate causes problems of heavy rain water, hot sun rays, high air humidity, as well as tropical insects which lead to physical decay of house elements. The traffic growth in the district, in addition, has caused the problem of dust and other air pollutants. Proper cleaning such as washing timber structural and architectural elements, whitewashing plastered brick walls, and replacing leaking or broken clay roof tiles, therefore, constitute basic regular maintenance. Cleaning the timber elements, however, is regarded as the most important. As in most parts of Kudus traditional houses consist of elaborately carved timber, their cleaning becomes a difficult treatment. A specific traditional liquid is used for this treatment, containing a mixture of water, tobacco and clove. This timber cleaning cannot be carried out regularly by every house owner, as it is considered expensive and time-consuming. No chemical materials are used in the timber treatment, although they may be more effective. This is probably due to the lack of knowledge of such materials and a belief that, if not carefully carried out, it may be detrimental. Other cleaning materials for timber, accordingly, are often used as a substitute for the tobacco-clove-water mixture, including liquid taken from the trunks of banana trees which can be easily found in the district.

**(14) Demand for extended domestic living space.** Population growth has caused an inevitable demand for larger living spaces, which has further led to a degradation in quality of domestic living space. Houses have been occupied by a larger number of inhabitants over time. Residential lots and houses have been divided into several smaller lots, to provide space for several families. Individual living areas have be-

come much smaller with each space fulfilling several uses and privacy in domestic living space decreasing. Modifications have been carried out to most houses, resulting in changes to the original architecture. These include the division of open interior spaces using permanent walls, the replacement of original timber partitions with brick walls, clay roof tiles with zinc plates, timber or brick floors with ceramic tiles, as well as the introduction of new ceilings and rain water gutters. Additions such as the construction of new rooms, new kitchens, and two-storey side houses result in a decrease in open space and a change in the original architectural character of the residential area. Basic maintenance such as the replacement of decaying materials of the houses and their environs, and the cleaning of public paths and rain water gutters, has been insufficient; this results in a slum-like appearance in several areas.

**(15) Demand for altered urban living space.** Various alterations carried out in urban spaces have caused change and disturbance to the character of the streetscape and townscape of the historic district, which have further led to a degradation in the quality of the urban living space. The landmark al-Aqsa Mosque has suffered from modifications such as the early-twentieth-century addition of the Moghul style dome-roofed front hall and the recent addition of awnings to expand its veranda. The form, proportion and position of the awnings as well as the materials and construction quality appear to be incompatible with other architectural qualities of the mosque. This addition, moreover, has caused visual disturbance to the open side court. Madurekso Square has been converted into a parking space, resulting in the loss of its original function as a gathering place. Small shops and other public buildings such as a library, a cooperation shop, an artists club, public toilets, and a small bus shelter, have been built in the square. The existence of these buildings is important to support public activities in the centre of Kudus old town. However, this has caused visual and spatial disturbance to the square in terms of urban design qualities. The layout of the buildings has reduced the sense of openness of the square, and their forms are architecturally incompatible with the surroundings. Food vendors and stalls have also occupied the square. The low quality of their materials and construction techniques, as well as the lack of sewage and garbage disposal systems detracts from the appearance of the square. Menara Street, one of the main streets in the district, has become very crowded with traffic, providing no space for pedestrians. Its facades have also suffered from various alterations, including contemporary facades; the layout, form, proportions and materials of newer facades are often incompatible with the architectural character of the surroundings. The widening of Sunan Kudus Street, another main street in the district, has provided better access to the east and south parts of the town, but in turn has dramatically altered the

streetscape. The replacement of its original facades, particularly the Chinese shop-houses, with contemporary facades has led to this change.

**(16) Unconscious destruction of Kudus architectural heritage.** A process of unconscious destruction has taken place in the historic district. A number of short-term solutions carried out by the inhabitants, including alterations, demolitions, sale, and removal of timber houses, have become substantial threats to the character, significance, and existence of the architectural heritage. As economic decline began consistent with the change to small-medium-scale trading and industry in the period between 1950 and 1975, prosperity has become a mere memory. Most descendants of the then prosperous traders have since been struggling for a good living. They have been unable to afford the maintenance cost of their timber houses. Difficulty in dividing houses and other properties among the heirs has been an important reason. Desire to obtain a large amount of money quickly, as well as to live in contemporary houses within a contemporary environment has also been a contributing factor. Timber houses are hence dismantled and taken to other places. High quality ones are reconstructed in new places, while the lesser ones are usually removed in separate parts as antique decorative elements. In a few cases, a house can be kept, lived in, and maintained on its original site, as in the cases of Haji Umar Ali's in Kauman quarter and Haji Saleh Syakur's in Demakan quarter. In such rare cases, a well-to-do heir, who would like to live there, provides money to be distributed to the other heirs of the family. Underlying socio-economic problems are difficult to solve. Alternative solutions should be sought. Understanding of the dangers must be generated through friendly advice, informal education, and informative popular publications.

### **3.2.3 Strengths, Weaknesses, Opportunities and Threats**

In order to develop an appropriate model, sufficient understanding of the underlying problems and situations pertaining to the historic Islamic district of Kudus is required. Discussion of the issues and constraints provides such an understanding. A summary identifying strengths, weaknesses, opportunities, and threats of the conservation process for Kudus architectural heritage, can provide a basis for the development of the model.

#### **(1) Strengths:**

**Popularity as an historic place.** The popularity of the district as an historic place having historic mosques, cemeteries, residential quarters with religious communities,

as well as a market and public square founded by Sunan Kudus, a *wali* and the founder of the town, enhances the potential of the old town as an historic place worthy of protection.

**Quality of heritage resources.** The high quality of architectural and archaeological heritage resources of the historic district, particularly the brick minaret, the mosque-cemetery complex, a number of ancient inscriptions, and the elaborately carved timber houses, attracts interest in the area of cultural heritage conservation.

**Reputation as a unique residential area.** The reputation of the district as an old town and historic residential area having unique urban structures and streetscapes attracts great interest, particularly in the area of historical, archaeological, architectural, and urban studies, and increases the architectural value of the district as an intact old town worthy of conservation.

**Reputation as an Islamic community.** The reputation of the district as an Islamic community having a strong religious way of life attracts great historical, social and political interest. This view enhances the value placed on the district as having religious and social significance worthy of conservation.

**Stable land value.** Relatively stable land values prevent the district from experiencing detrimental land speculation. This provides greater possibilities for the undertaking of urban conservation programmes.

**Strategic location.** The strategic location of the district on one of the main routes of Kudus town, and the strategic location of Kudus on the economic route between Semarang and Surabaya, provides high accessibility and economic viability. This in turn fosters greater opportunities for protection as a living cultural heritage.

**Established community.** The district is an established community with strong family ties and close neighbourhood relationships, which enhances its potential as a sound residential area having social value worthy of conservation.

**Reputation as a pilgrimage destination.** The district attracts a large number of both pilgrims and general visitors which in turn raises its economic viability. Pilgrimage also creates a unique atmosphere and heightens the sense of religious significance.

**Viability of religious events.** The viability of regularly held religious events such as rituals, ceremonies and festivals enhances the district as a sound pilgrimage destination having religious and social values worthy of protection.

**Popular knowledge of traditional methods of maintenance.** Local knowledge of traditional materials and techniques for building, repairing, and maintaining timber houses provides a technical basis for their survival.

**(2) Weaknesses:**

**Lack of financial resources.** The shortage of financial resources results in a limited budget for architectural conservation programmes so that only a limited range of policies can be implemented.

**Weak political support.** Insufficient political will results in a common opinion that architectural conservation is less prestigious than contemporary development, which further leads to the shortage of financial support, and a lack of public and private interest in undertaking conservation programmes.

**Lack of legal mechanisms.** There is an absence of legal power and control mechanisms which are urgently required for effective conservation programmes.

**Low potential of taxation.** The low level of taxes applied in the historic district makes it impossible for the architectural conservation budget to rely on taxation as a source of revenue.

**Insufficient coordination.** Insufficient coordination among authorities, agencies, and other institutions involved in delivering architectural conservation programmes results in a lack of mutual cooperation and information exchanges. This lack of coordination weakens the coverage and consistency of conservation activities in the district.

**Weak administration system.** The lack of competent staff results in ineffective management of architectural conservation programmes. This can be seen in the lack of programme development, the ineffective use of funds, and a lack of systematic heritage registration, documentation, and publication.



**Shortage of personnel resources.** The shortage of competent officials and qualified professionals ,who understand architectural conservation issues and practice, results in ineffectiveness of architectural conservation programmes.

**Lack of central archive.** The absence of an appropriate archive system means that valuable materials, i.e. historical records, town development records, architectural inventories, survey reports, and research papers are not centrally located. This limits further research.

**Insufficient publication and promotion.** Insufficient publication and promotion pertaining to the cultural value of the historic district results in the lack of popular understanding of the significance of the architectural heritage. This lack of understanding translates into limited popular support for conservation.

**Lack of practitioners involved.** The opinion that architectural conservation processes are difficult and require greater awareness of cultural significance of places, causes fewer practitioners to become involved in architectural conservation projects. This limits professional and practical inputs into these projects.

**Lack of knowledge of contemporary methods of maintenance.** Inhabitants' lack of knowledge about contemporary techniques and materials for cleaning and preserving the timber elements of their houses encourages lack of maintenance and replacement.

**Lack of appreciation for urban spaces.** Insufficient popular understanding of the cultural significance of Kudus heritage leads to the lack of appreciation of the historic urban structures and spaces, as well as the traditional habitat found in the historic district, which has great cultural significance as a living architectural heritage.

**Low economic viability.** The low economic viability of the historic district caused by the migration of potential traders, and the moving of tobacco warehouses and shops to the newer parts of Kudus town, accelerates the migration of inhabitants to newer areas and the lack of investment in the historic district.

### **3) Opportunities:**

**International and national support.** Both international and national support, particularly financial aid, technical assistance, and staff training, could be obtained, if

the cultural significance of the historic district of Kudus is properly published and promoted, and funding is consistently sought.

**Growing interest of private sector.** The increasing interest of the private sector in heritage conservation could provide a better chance for fund-raising, if supported with an appropriate incentive-disincentive system and accompanied with a moral responsibility for saving an invaluable cultural heritage rather than to merely gain financial benefit. A positive attitude to participating in the development of a sustainable historic environment needs to be encouraged. The perception that conservation projects carry equal prestige to contemporary ones should also be fostered.

**Links with current programmes.** Links with current or proposed regional and local programmes like Pilot Project of Four Towns with Identity of Central Java, Kudus Town Beautification, and Menara Area Development Project could provide greater opportunities for carrying out more effective architectural conservation programmes, if integrated coordination between relevant authorities, agencies and personnel is fostered.

**Growing support of local and regional government.** The growing political support of the local government of Kudus Regency and the regional government of Central Java for conservation could provide improved access to financial, supervisory and administrative assistance, if cooperation between universities, practitioners and government is promoted.

**Growing interest of general public.** The increasing interest of the general public in the cultural heritage value of Kudus historic district, if enhanced through appropriate publication, could foster a growing popular awareness of the importance of its conservation. This could in turn provide greater public support for architectural conservation programmes, prevent unconscious actions of destruction, and increase the status of historic vernacular architecture.

**Growing interest of practitioners.** The growing interest of architectural, urban planning and engineering practitioners in architectural heritage conservation issues and practice could encourage professional involvement in the conservation projects related to Kudus' architectural heritage, if supported with a new view that conservation projects can be more prestigious than contemporary ones. An awareness of a moral responsibility to protect invaluable architectural heritage in

spite of economic pressure is needed. Enthusiasm for the development of a sustainable historic environment can be encouraged by government programmes.

**Revival of woodcarving.** The existence of a few woodcarving artists and their workshops provides possibilities for the process of repairing and restoring decaying timber elements, reconstructing decaying Kudus timber houses, as well as constructing new ones, and could lead to a revival of an almost extinct craft. A supporting programme of continuous apprenticeships and training for junior wood-carvers could provide a basis for formal and informal conservation.

**Increasingly well-educated inhabitants.** The increasing number of well-educated inhabitants of the historic district, if supported with proper information and advice, could foster a greater popular understanding and appreciation of the cultural heritage values of their dwellings as traditional urban habitat. This could further prevent unconscious actions of self-destruction and, conversely, raise a sense of self-respect and community pride.

**Potential as tourist destination.** The potential of the historic district as a tourist destination could encourage more tourism development projects which, if incorporating the priorities and practice of architectural conservation, could provide incentives for conservation projects. Linking conservation to tourism could overcome resource limitations.

#### **4) Threats:**

**Increasing economic pressures.** The increasing economic pressures suffered by the inhabitants of the historic district of Kudus result in the inability to properly maintain their heritage houses, public facilities, and the overall environment, which could lead to the destruction of the houses, as well as the decay of the character of the district.

**Changing ways of living.** Changing way of living caused by changing demands, such as the need for more spacious environments, easier-to-maintain houses, quicker transportation, more convenient traffic access, and economically viable places, is encouraging a common preference to live in contemporary environments. This could lead to further migration of inhabitants of old residential areas to newer districts of Kudus and could result in the total neglect of the historic Islamic district.

**Raising house prices.** The continuous increase in house prices caused by greater demand for historic artefacts results in greater numbers of house owners attempting to sell their architectural heritage properties for remarkably high prices, which could lead to the extinction of timber houses on their original sites.

**Easily dismantled building elements.** The easily dismantled character of Kudus timber houses makes it easier for them to be sold and moved in parts, one at a time, resulting in the incompleteness of the remaining houses. This could lead to total extinction of these houses on their original sites and damage to the overall character of the district.

**Emergence of house brokers.** The emergence of brokers who come from other towns and act as agents in the transactions of Kudus timber houses, makes the situation worse as house owners can sell their timber houses and house elements with greater ease. This could lead to a more rapid process of extinction of timber houses and destruction of the character of the district.

**Population growth.** Rapid population growth causes the degradation of both domestic and urban spatial qualities in the historic district.

**Traffic growth.** Rapid traffic growth results in congestion and disorder in the narrow streets, paths, and public open spaces of Kudus old town, making these spaces inconvenient and uncomfortable for public access and gatherings. This could provide incentives for decision-makers to broaden streets or demolish buildings.

### **3.2.4 A Model for Safeguarding Kudus**

The development of an appropriate conservation model must be based on an awareness of the problems, issues, and constraints pertaining to the historic Islamic district of Kudus. The development of the model should also utilise the strengths, try to overcome the weaknesses, explore the opportunities, and be aware of threats associated with the district's integrity.

The model should address both the place and the people as a whole living heritage. Safeguarding the architectural heritage of the historic Islamic district should be considered as both conserving the habitat and enhancing the quality of life of the inhabitants.<sup>116</sup> The cultural identity of the inhabitants expressed in the social structure,

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<sup>116</sup> See as a comparison : Laretna T. Adishakti, *Conservation Planning and Urban Design in Historical Settlement : case study Tamansari, Yogyakarta*, a paper presented on the 2nd Country

economic activities, and religious life is as significant as the urban and architectural structures of the district.

The model should be based on a sufficient understanding of the cultural significance of the district. This requires a comprehension of the broad historic context of the district. A summary examination of the historic context, therefore, needs to be established prior to the assessment of significance.

A policy needs to be established to achieve conservation purposes. As safeguarding the architectural heritage of the district means conserving living subjects who have the right to change, a vision anticipating the dynamic development of the district is an important factor. The conservation policy needs to incorporate urban planning and design issues. Its implementation requires identification of future directions for urban planning and design practice. The model illustrated in Figure 3.4, therefore, consists of four stages.

**Examination of historic context.** This first stage comprises: (1) the identification of historic themes; (2) the identification of heritage resources representative of the themes; and (3) the identification of geographical boundaries or spatial formation of the place. The information is collected from documentary evidence and local oral history. A review of aspects of assessment of historic context is included in **Appendix IV**.

**Analysis of cultural significance.** The second stage includes: (1) the assessment and grading of the cultural significance of the place; (2) the formulation of conclusions; and (3) the establishment of the statement of significance. The assessment is carried out through the recording and analysis of the fabric of the place, with regard to its abstract content. Both physical and documentary evidence is collected and analysed. Abstract content, which includes the spiritual and the symbolic, is explored through both the experience of the place and observation of the social and spiritual attachment of the people to their environment. An understanding of the socio-economic background and cultural foundation of these people is an important basis for the exploration. Description of the socio-economic background and cultural foundation of the Kudus society is included in **Appendix II**, and a review of aspects of assessment of cultural significance is included in **Appendix IV**.

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Seminar on Regional Development of Yogyakarta Special Province, held by the United Nations Centre for Regional Development in cooperation with the Directorate General of Human Settlements-Ministry of Public Works and the Government of Yogyakarta Special Province, Yogyakarta, September 3-6, 1991. This study suggests a social concern for conserving both the habitat and inhabitants of historic Tamansari.

**The establishment of conservation policy.** The third stage comprises: (1) considerations of current conditions, constraints, and requirements pertaining to the place and the people; (2) the formulation of conservation policy; and (3) the establishment of directions for policy implementation. Considerations concerned with the place include physical condition of the fabric, particularly its stability and security, and constraints arising from the statement of significance. The social considerations include needs and aspirations of the inhabitants or users. In addition, requirements arising from external factors, i.e. administrative, legal, fire safety and health requirements, need to be taken into account. The development of policy sets out conservation objectives and primary, secondary, and supporting programmes for achieving the objectives. It considers timing and sequence of the events, financial resources, the establishment of the management structures and the enforcing of legal mechanisms. The establishment of appropriate approaches to policy implementation sets out directions for conservation activities.

**The provision of directions for planning- and design-oriented conservation process.** The final stage intends to safeguard the living heritage while anticipating appropriate development. This is undertaken through the integration of heritage conservation processes with the overall urban planning and design processes. The development of guidelines and other legal, financial, and administrative tools should follow this final stage. Considerations include assessment of architectural forms, structures and qualities of areas and individual sites, and planning and design requirements. The guidelines and tools for research, planning, design, and implementation should be prepared with extensive involvement of residents, administrators and practitioners. This lies outside the scope of this study.

The analytical basis of this study comprises the first three stages: "analysis stages" and "policy stage", shown as grey areas on Figure 3.5. The fourth, the "design stage", is suggested to be included in further study.

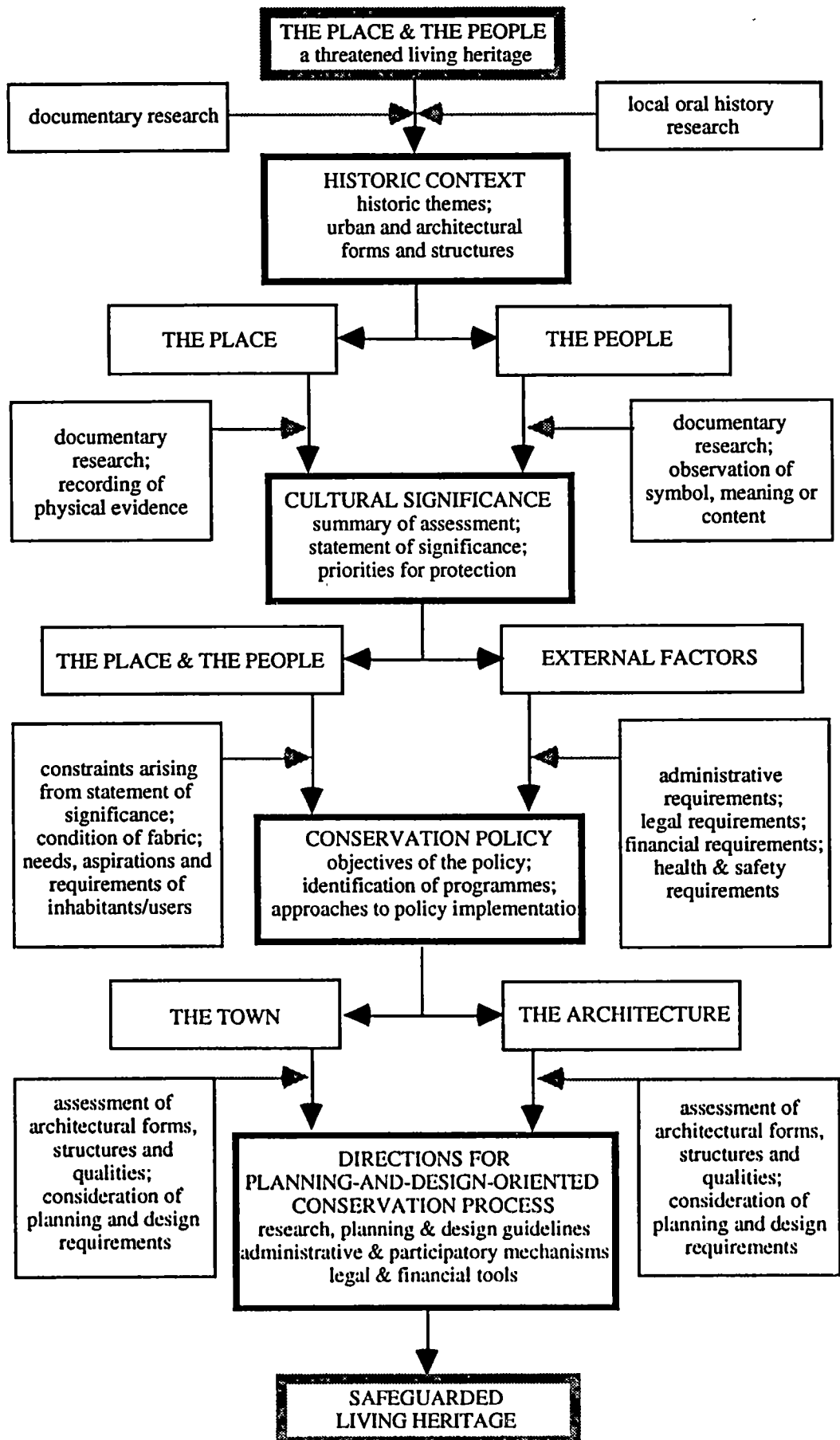


Fig. 3.4 Diagram of the model for conservation planning.

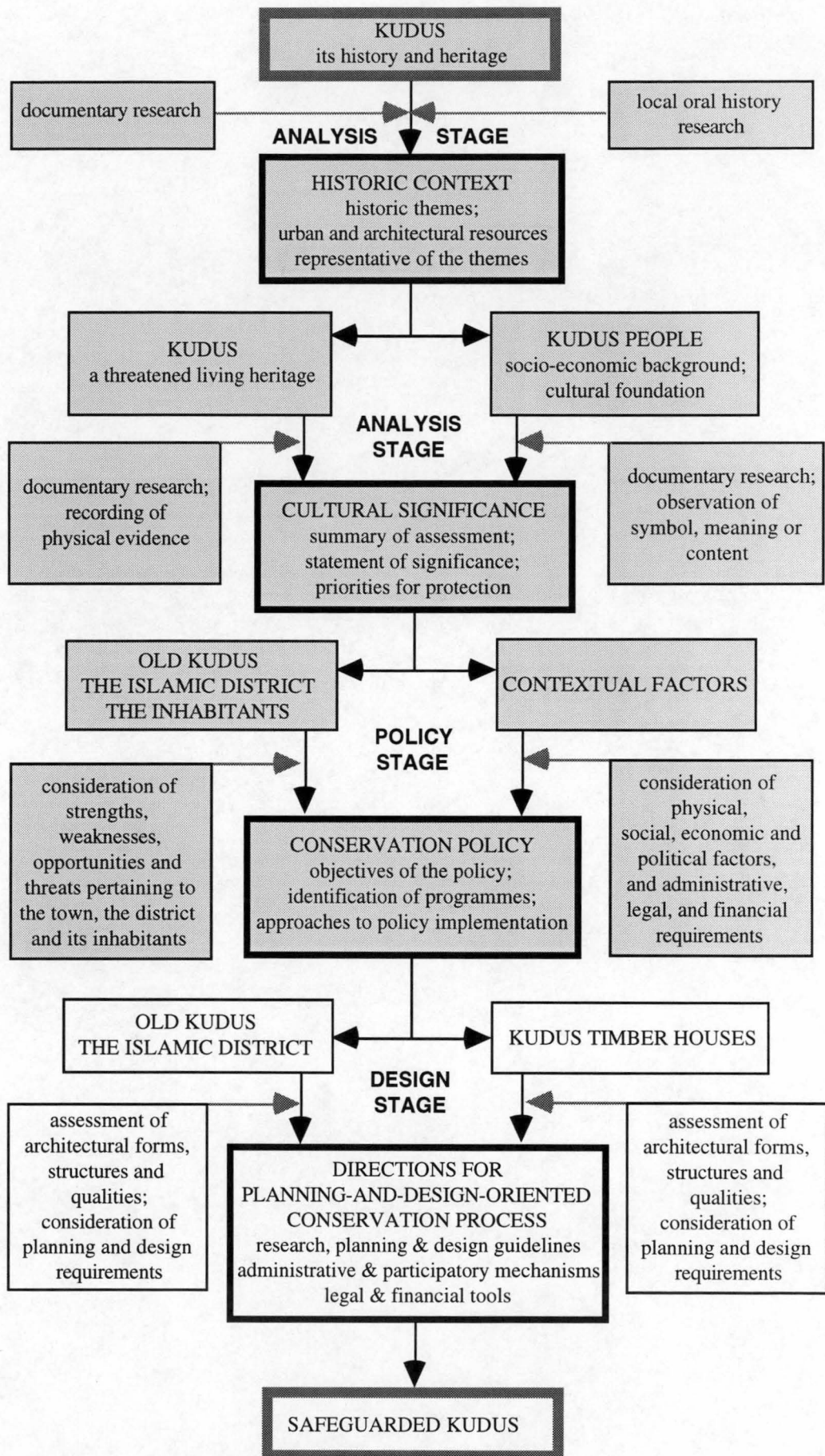
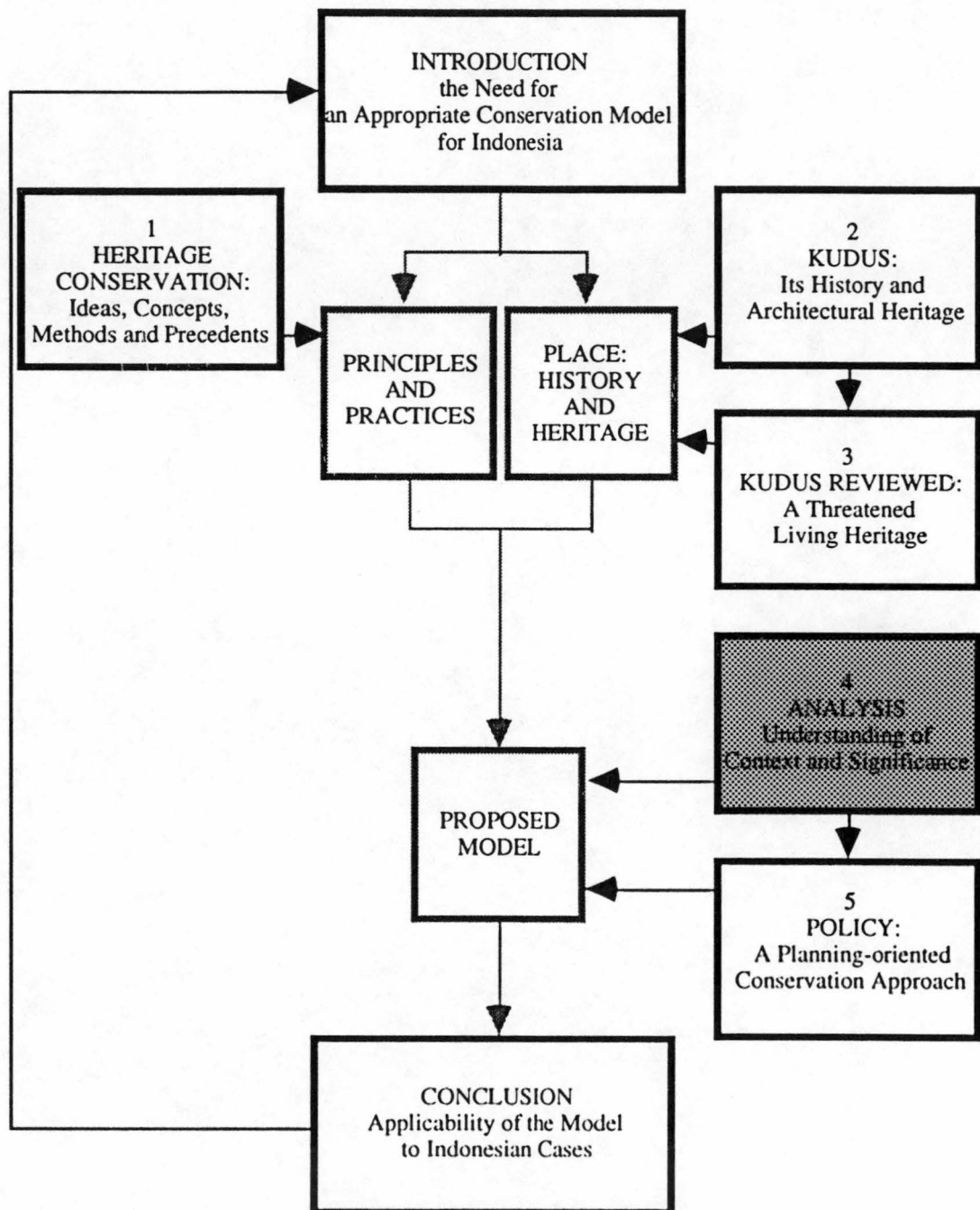


Fig. 3.5 Diagram of the model for conservation planning of Kudus.



**Safeguarding a Living Heritage:**  
**A Model for the Architectural Conservation of an Historic Islamic District of Kudus,**  
**Indonesia**



# 4

## ANALYSIS :

### **Understanding of Context and Significance**

Kudus provides a case study through which a model for conservation decision-making can be developed and demonstrated. This chapter describes the analytical basis for the model. This analysis determines cultural significance through a greater understanding of the local, regional and national historic context of the environment.

An examination of the broad historic context of the built environment provides a clear basis for understanding architectural significance. Historic themes, those topics having significant historical associations, are identified through such examination. The context, moreover, provides an effective means for identifying heritage resources representative of a broad range of themes which the community might deem significant. Heritage resources need to be further assessed in the light of culturally significant values: historic, aesthetic, scientific and social, and contextual factors: physical, economic, social and political. Grading of cultural values and of the resources themselves allows conservation planners to identify critical sites for protective treatment.

A model for the safeguarding of Kudus architectural heritage may, therefore, be developed by: (1) identifying historic themes; (2) identifying urban and architectural heritage resources representative of each theme resulting in the preparation of a preliminary inventory; (3) assessing and grading the significance of the heritage resources, in the light of cultural values and contextual factors, resulted in the preparation of a critical inventory; and (4) selecting the most critical areas and structures requiring immediate documentation and further conservation measures. The final stage in this procedure, in which the most critical sites are selected, provides a tool for immediate conservation programmes.

This process provides a sound foundation for decisions by creating a conservation strategy. Working with severely limited resources, planners require a tool which establishes the relative priority of heritage sites. The thematic study, resource inventory, and assessment of significance described in this chapter will allow conservationists to form a clear basis for action.

A complete test of this model is outside the scope of this exercise. A thorough testing of the model would require staff and funding beyond the capacity of an essentially academic work.

## **4.1 Examination of Historic Context**

In establishing the historic themes of Kudus, it is necessary to note that some parts are interpretive due to a lack of sufficient information regarding the history of the town's physical development. Little is known about the history of the town in the pre-Islamic era before the early sixteenth century and between the late sixteenth and early eighteenth century from the establishment of the town until the growth of the tobacco trade. There has even been a dispute among historians, as to whether the old minaret was actually part of a Hindu temple belonging to the pre-Islamic era or part of the Islamic mosque built by the early Islamic community. It is beyond the scope of this study to ascertain exact historical development. The formulation of historic context should properly involve Indonesian history scholars, but such involvement is beyond the capacity of this investigation. Interpretative methods, particularly those most relevant to urban and architectural development have, therefore, been relied on in preparing the historic themes.

### **4.1.1 Identification of Historic Themes**

The historic context of Kudus is part of a broader regional context of the spread of Islam in Java. The themes, in chronological sequence, may be established starting from the period when Islam first reached Kudus in about the late fifteenth century. However, in order to understand the whole context, the immediate period just before the the coming of Islam needs to be considered.

The historic themes of Kudus may thus be established as follows :

- (1) Pre-Islamic Community (before the late 15th century);
- (2) Early Islamic Community (early - mid 16th century);
- (3) The Establishment of the Town (1549 - late 16th century);

- (4) Mataram Court Rule (early 17th - late 18th century);
- (5) Dutch Colonial Administration (late 18th - early 20th century);
- (6) The Peak of Socio-economic Growth (during the 19th century);
- (7) The Rise and Growth of Clove Cigarette Industry (late 19th - early 20th century);
- (8) Socio-Economic Decline (mid 20th century - early 1970's);
- (9) New Urban Development (mid 1970's - mid 1980's); and
- (10) Contemporary Urban Development (late 1980's - present).

#### **4.1.2 Examination of Historic Context**

Each historic theme is examined from political, socio-economic and cultural viewpoints, and from architectural and urban spatial perspectives. For the purposes of demonstrating the method a brief summary of the established themes is provided.

##### **(1) 'Pre-Islamic Community' : before the late 15th century**

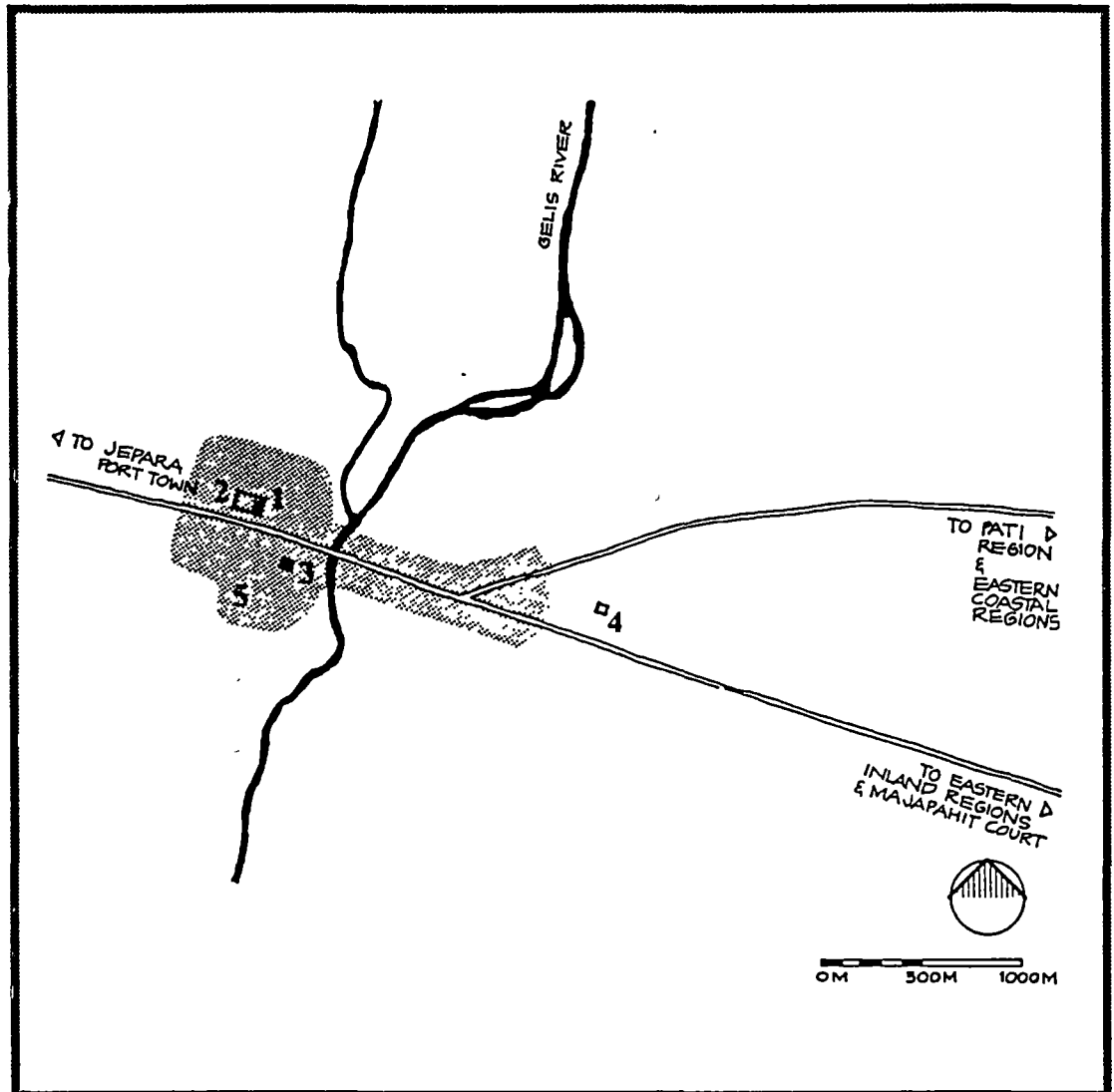
There are no records of political life in the earliest pre-Islamic community of Kudus, although some historians indicate the area, which was originally called Tajug, was probably controlled by the Majapahit court. The name *tajug*, which connotes sacredness, indicates that it may have been a sacred place containing sacred Hindu architecture, some archaeological and architectural remnants of which can still be found today. Even during the period of the Demak Islamic court between the late fifteenth and the mid sixteenth centuries, when adjacent regions, such as the port town of Jepara, had come under Demak rule, Kudus apparently still remained independent.

This early community appears to have been primarily agricultural, with rice as the main crop, and some other crops such as cassava, sweet potato, and corn, planted in the dry season. Information on the social structure and organization could not be obtained for this study.

Before Hindu influence, the early community of Kudus, like early Javanese communities generally, probably practised an indigenous Javanese way of life which was greatly influenced by animistic beliefs. With the advent of Hinduism, a form of syncretic Hinduistic-Javanese culture developed.

Physical evidence does not reveal a clear picture of the historical development of the earliest settlement. It is unclear whether it began with a linear main road with dwellings on both sides as in typical early Javanese settlements, or with a crossroads

surrounded with dwellings as in Hindu-influenced early Javanese settlements. The latter had a small open centre at the crossroads as a public gathering space and a place for bartering goods. It is also possible that the settlement developed starting from a linear pattern, and the crossroads were formed later in line with population growth. (Fig. 4.1)



**Fig. 4.1** Spatial formation : 'Pre-Islamic Community'  
 (1) Menara Kudus "minaret"; (2) Site of al-Aqsa Mosque & Sunan Kudus' cemetery; (3) Langgar Bubar "destroyed mosque"; (4) Site of Ngangukwali Mosque; and (5) Dwellings surrounding the above structures

Clay-brick structures, such as the Langgar Bubar "destroyed mosque" and the Menara Kudus "minaret", possibly belong to this period, though this has been disputed. The architecture of this period may include the sites of al-Aqsa Mosque complex, Ngangukwali Mosque, and Jepang Mosque, the clay-brick walls and gates of which can still be found today. Clay-brick, a relatively durable material, was apparently used as the main material for sacred buildings only. This may have been due to a

belief that sacred buildings are symbols of eternity. More vulnerable materials, such as wood, bamboo, and thatch or palm leaf, seemed to have been widely used for profane buildings such as dwellings and general communal facilities. The vulnerability of these materials may, therefore, explain the lack of physical evidence of the historical development of the early dwellings.

Both the al-Aqsa complex, including the "minaret", and the "destroyed mosque" are located on the west side of the Gelis River, whereas Ngangukwali and Jepang mosques are situated to the east and far south-east. Early Kudus may, therefore, have emerged with an east-west linear access, one direction leading to the ancient port town of Jepara and the Islamic court town of Demak, and the other to eastern inland regions where the Majapahit court was situated, branching off to the Pati region and subsequently to the eastern coastal regions.

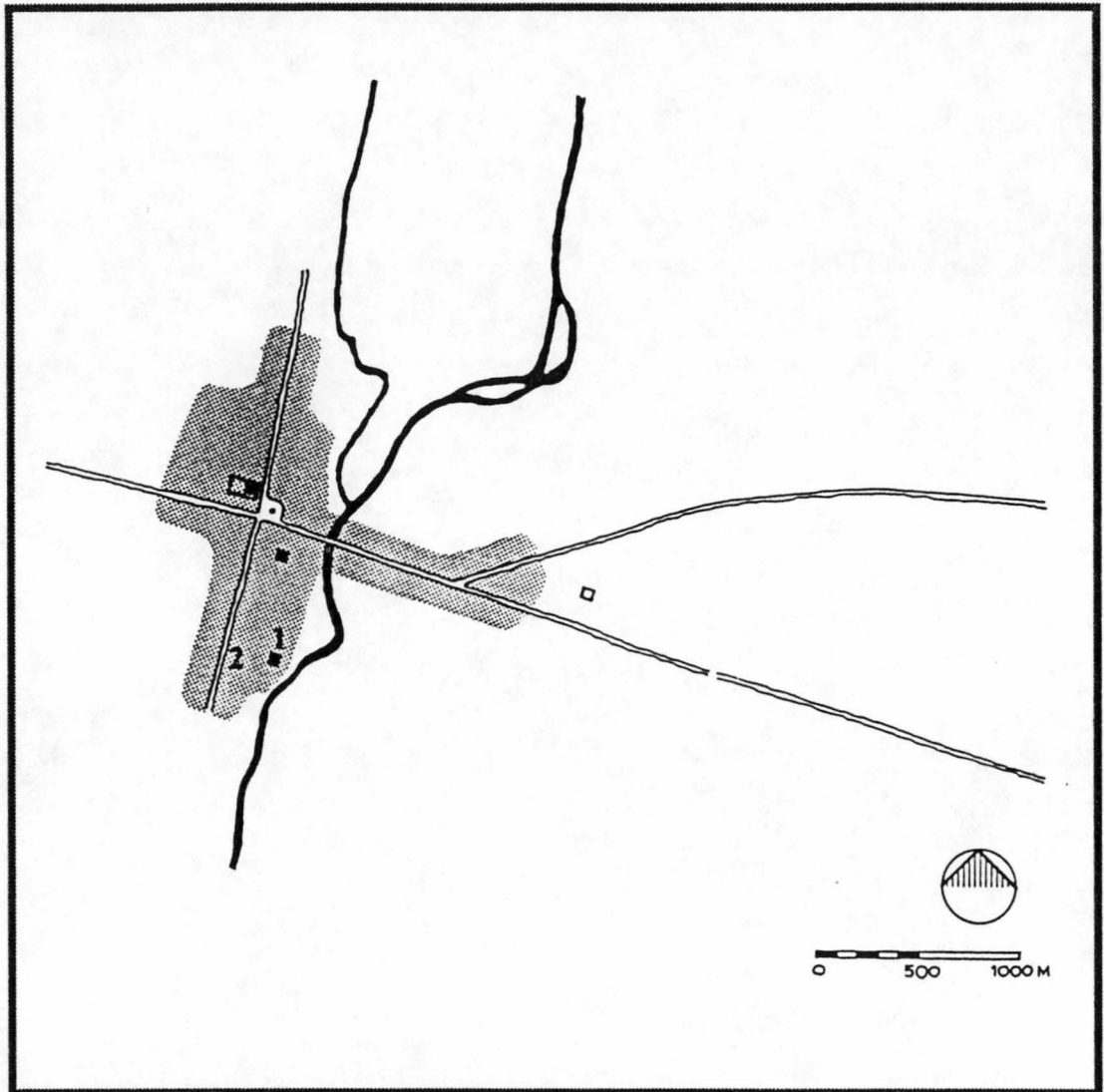
## **(2) 'Early Islamic Community' : the early - mid 16th century**

As noted in local history, the coming of Islam may have begun a generation before the town was established. Kyai Telingsing, a Chinese Moslem preacher and artist whose tomb is located at Sunggingan village, may have brought Islam to Kudus, accompanied by Chinese Moslem merchants and artists. An early Islamic community then emerged, apparently as a consequence of the preaching and teaching of Kyai Telingsing. His pupils' original intentions were possibly to learn the art of carving. As is often the case in Javanese traditional teacher-pupil relationships, some of the pupils possibly began to settle in the quarters surrounding Kyai Telingsing's residence. They may have then formed a small Islamic community within the Hinduistic-Javanese one. This community may have then gradually grown enhanced by marriage ties among the Islamic pupils.

The existence of a central political power is not clear. However, there may have been communal acceptance of Kyai Telingsing as a religious leader. Not much is known concerning the socio-economic life of this early Islamic community. It is highly possible that there were no notable change from pre-Islamic times. Agriculture, with rice as the staple crop and some dry season crop, was possibly still the primary means of livelihood.

Chinese-influenced culture in Kudus may have developed under Kyai Telingsing, particularly in the field of art and crafts. The influence was probably most prominent in the art of woodcarving used in buildings for structural, architectural, and decorative elements.

Few architectural structures from this time remain, except the burial site of Kyai Telingsing. This site, which is located on Sunggingan quarter, seems to be the only obvious physical evidence of this early Islamic community. Clay-brick walls of this tomb show similarities to that of the "destroyed mosque" and the "minaret". Other structures may have been made of vulnerable materials like timber and thatch or palm leaves, so that no physical evidence can be traced.



**Fig. 4.2** Spatial formation : 'Early Islamic Community'  
(1) Burial site of Kyai Telingsing; and (2) Sunggingan quarter

Despite the lack of physical evidence, the formation of the early Islamic community can be traced by interpreting toponyms. The toponym *sungging-an*, which means the place of carving artists, indicates that the quarter was quite possibly the original location of the Kyai Telingsing residence. Moreover, the adoption of his name for Kyai Telingsing Street, leading from this quarter to the north, indicates that the street was possibly the original main access of Sunggingan quarter to the main road

that runs east-west. This street may have formed a part of the crossroads, the centre of which could have been a communal place and an open space for trading agricultural products. Even though there is not much remaining physical evidence, Sunggingan quarter and Kyai Telingsing Street may indicate the location of the early Islamic community. (Fig. 4.2)

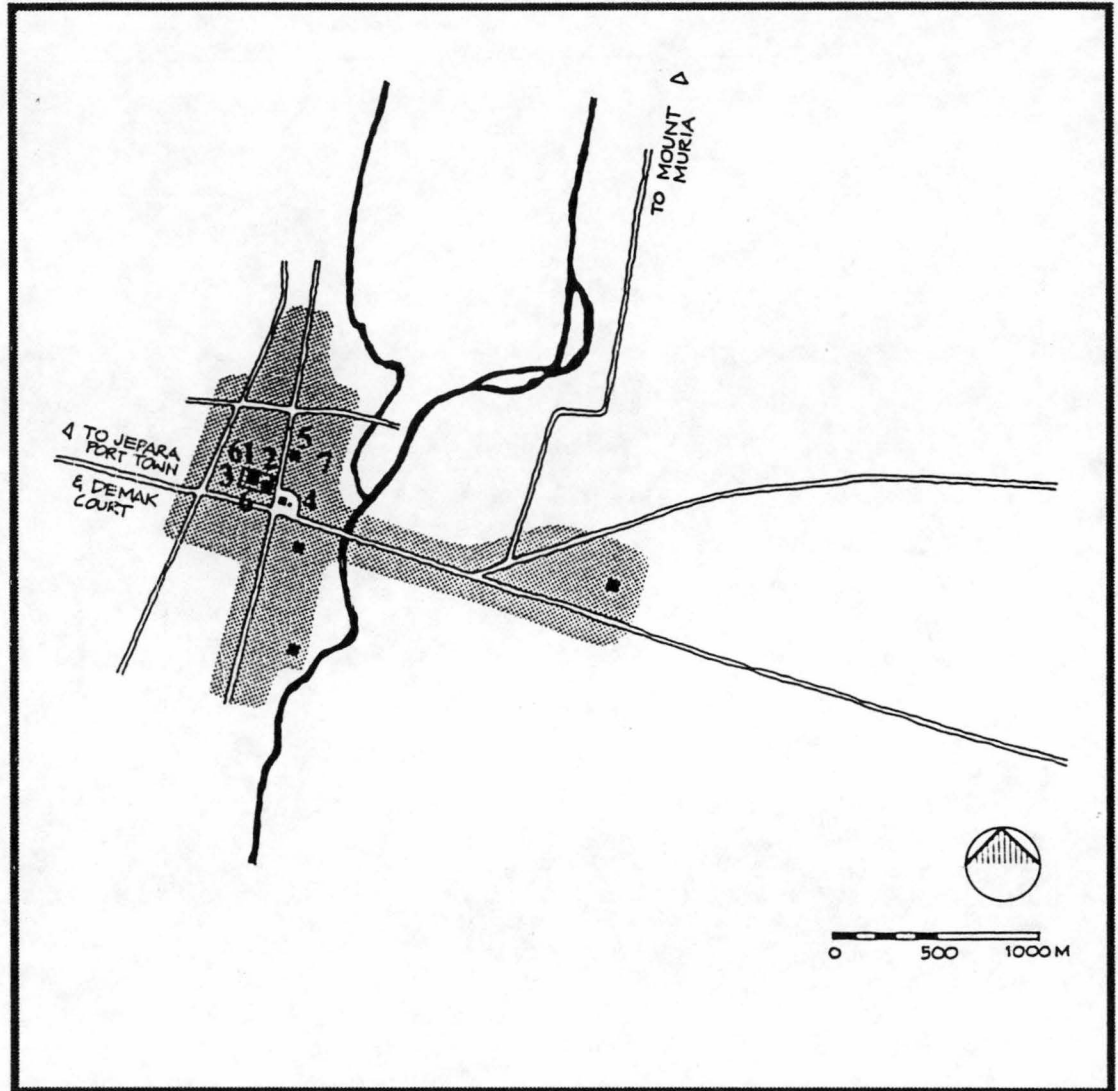
### **(3) 'The Establishment of the Town' : 1549 - the late 16th century**

This period may have been the first peak of Kudus' development as a town. It is not clear whether Kudus was still an independent region outside of Demak rule. Sunan Kudus probably left Demak in order to establish a new religious state in Kudus. Like the towns of Gresik and Cirebon, Kudus may have never been conquered by Demak, for these towns were ruled by spiritual leaders who were highly esteemed by the Moslem population of the northern coast of Java. Some historians, however, argue that Sunan Kudus was sent by the Demak ruler to expand his power. According to the inscription in the al-Aqsa Mosque, Sunan Kudus established the town in 1549. He called himself Ja'far Sadiq, but was then popularly known as the *sunan* of Kudus, or concisely Sunan Kudus. He named the town al-Quds, its great mosque al-Aqsa and the minaret al-Manar. As a former religious leader and military commander of the Demak court, he had charismatic power, religious knowledge, and military skill. Applying the principle of state-religious unity, he served as leader of the Kudus community, and his pupils and followers resided around him. The choice of the place may have been for several reasons : it had been an independent region free from Demak political power; it could have previously been a sacred place; and there had already been an Islamic community whose leader, according to local history, was Kyai Telingsing. Adaptations of Middle Eastern names -- al-Quds and al-Manar -- to Indonesian -- Kudus and Menara -- are common.

The community appears to have remained primarily agricultural. A number of pupils and followers of Sunan Kudus are likely to have become Islamic religious teachers. Others may have started to trade in agricultural products. The social organisation may have gradually changed from a merely agricultural one, which was very much dependent on natural processes, to a religious community organisation which fostered a spirit of entrepreneurship. This Islamic religious community also fostered devoutness by integrating the indigenous Javanese concept of teacher-pupil relationship, emphasising faithfulness and close contact between religious teachers and pupils. They applied the Islamic maxim to work toward prosperity as though one would live for a thousand years and be devout as though one would die tomorrow.



Islamic culture gradually replaced the Hindu, while Chinese-influenced art and craft-skill continued to grow. Some Hinduistic customs, however, were retained, such as the prohibition on slaughtering cows. The Islamic reasoning was twofold : avoiding offense to the formerly Hindu community and minimising resistance to Islam.



**Fig. 4.3** Spatial formation : 'the Establishment of the Town'  
 (1) Al-Aqsa Mosque; (2) Menara "minaret"; (3) Sunan Kudus' cemetery; (4) Madurekso Mosque; (5) Langgardalem Mosque; (6) Kauman quarter; and (7) Langgardalem quarter

A compact urban structure then began to develop, comprising Madurekso square, Kauman quarter, and Langgardalem quarter. The surrounding quarters, including Demangan, Janggalan, Damaran, and Kajeksan appear to have also grown, although in a less compact form. The toponym *padu-rekso*, which means solving of conflicts, indicates that, in addition to its previous use as an open space for trading agricultural products, Madurekso square also served as a place for community gathering to solve communal problems and conflicts. The toponym *kaum-an*, which means the place of

religious community, indicates that Kauman was the residential quarter of religious pupils and followers of Sunan Kudus. The toponym *langgar-dalem*, which means private mosque in the residence of an honourable person, indicates that Langgardalem quarter was the location of Sunan Kudus' residence. (Fig. 4.3)

Madurekso Mosque may have been built in the square to serve as a public mosque for traders and passers-by, while al-Aqsa served as a community mosque. Al-Aqsa appears to have suffered from alteration over time, from the possibly clay-brick and carved-timber original structure to the combination of timber, plastered-brick and concrete structure of today. Madurekso Mosque apparently also lost its original materials and construction. No documentation was made during alterations, particularly prior to its last alteration in the early 1970's. Its shape, modest scale, and low floor-level, however, are probably original. The cemetery of Sunan Kudus was integrated into the al-Aqsa. This cemetery is apparently original in its style, structure, and materials, comprising timber buildings separated and surrounded by clay-brick walls, with clay-brick splitgates or gates with double-leaved timber doors. The disputed clay-brick minaret may have been built in this period using Hinduistic architectural style. Langgardalem Mosque, which may have served as the private mosque of Sunan Kudus residence, still exists today. As in the cases of Madurekso and al-Aqsa, it has been very much altered. According to local oral history, Ngangukwali mosque may have been the first mosque built by Sunan Kudus together with Kyai Telingsing during their first meeting.

#### **(4) 'Mataram Court Rule' : the early 17th - the late 18th centuries**

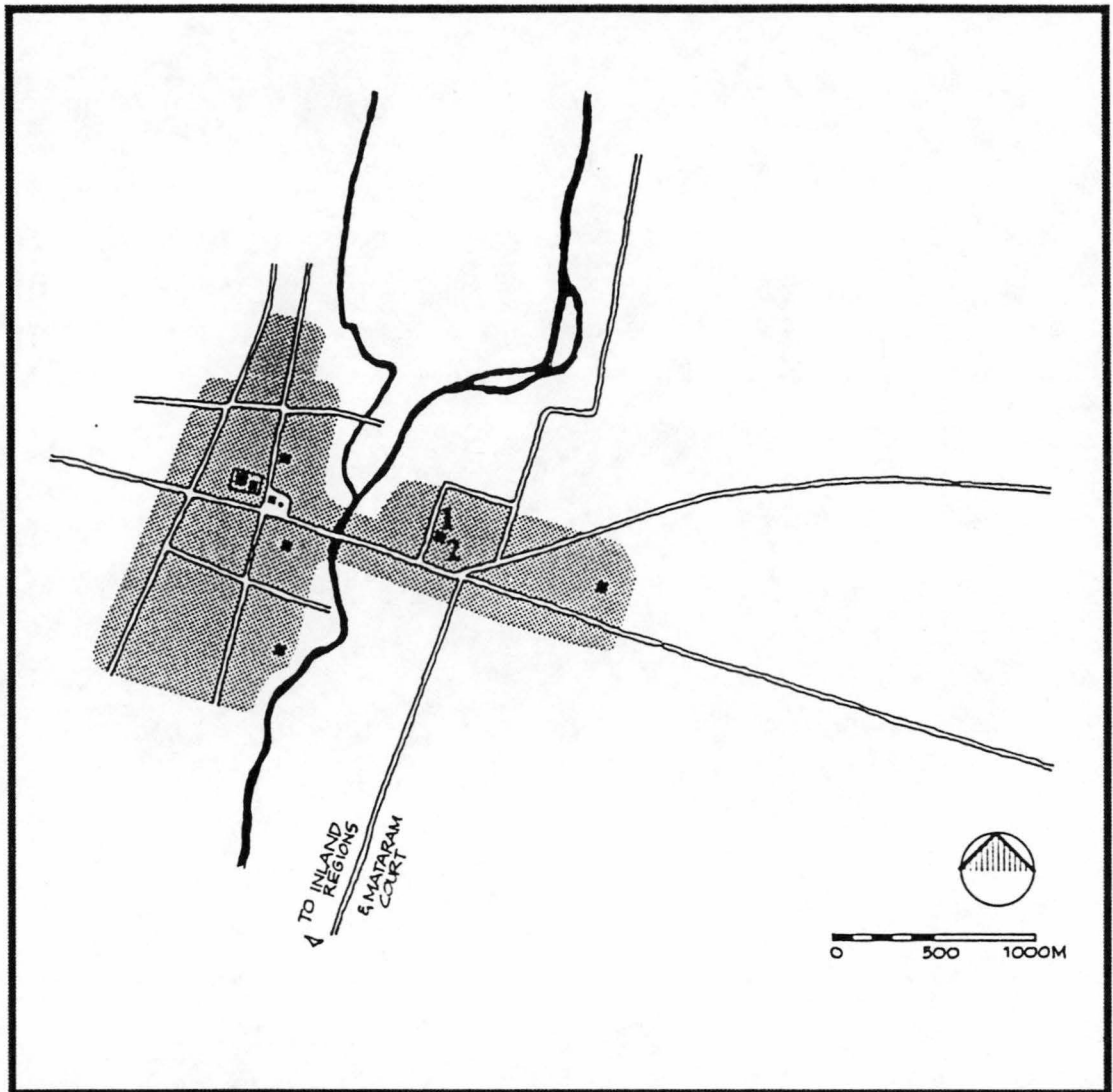
Kudus fell under Mataram rulers in the early seventeenth century. Its administrative structure, however, remains unclear. Prince Puger, half brother of the king of Mataram who had been sent as a regent to rule over Demak, arose in rebellion. After being defeated by Mataram, he was sent to Kudus for life in 1605 to be a religious pupil. This shows that at the time Kudus was firmly under Mataram control. When a number of rice-exporting regions submitted to the Dutch East-India Company in 1678, Kudus was still under the Mataram court.

Kudus may have become an important rice supplier for Mataram court. The rice was exported through Jepara, which served as the seaport of the inland court of Mataram. As the communities of the Kudus region were largely agricultural, those of the town centre, particularly that of Kauman quarter probably became successful traders in agricultural products due to their spirit of entrepreneurship.

Kudus people were largely categorised into two groups : the devout Muslims who were traders living in the central quarter of the town, and the more syncretic Hinduistic-Javanese believers who were farmers living in the surrounding region. Intense contact with Mataram for about two centuries seems to have resulted in their cultural amalgamation. The highly refined court culture of Mataram seems to have influenced Kudus, particularly in the architecture of houses. There is however a primary difference between the architecture of Mataram and that of Kudus. In Mataram, traders and merchants were regarded as having low status in society while the royal families, nobility, and higher officials had high status. These aristocratic people built large palace-like *joglo*-type timber houses, the function of which may have been twofold : showing their higher status while accommodating large families and many servants, and providing a venue for official meetings, community gatherings, and entertaining guests. In Kudus, possibly as a result of Islamic teaching, everyone was regarded as having the same status. However, Kudus people regarded wealth as being an honour equivalent to aristocratic status. Successful traders and merchants of Kudus living in the central quarters of the town therefore tried to reflect their wealth and honour by adopting the architecture of palace-like timber houses. In order to distinguish them from the aristocratic houses, Kudus houses were modified in style, to be less complex in spatial organisation, yet much more intricate in detail and carving. Similarly, important people in the farming community of the region, such as village headmen and their assistants, also built *joglo* timber houses, though much simpler in decoration. It is unclear, however, whether Kudus developed its wood-carving tradition from Kyai Telingsing and his pupils, or adopted it from people of the seaport Jepara who may have had more cultural contact with foreigners, particularly Chinese and Persian carvers and artists.

Kudus town expanded to include a quarter called Demakan, located on the east side of Gelis river. Its toponym *demak-an*, which means the place of people of Demak, possibly referred to Prince Puger, the former Regent of Demak, who resided there after being defeated in rebellion against the central Mataram ruler. Demangan and Janggalan quarters, which had been developing in the previous period, possibly gained greater importance. The toponym *demang-an*, which means the place of a village official or a customary law expert, may have referred to a position under the administrative structure of the Mataram court. Toponym *jenggolo-an*, which means the place of a person named *jenggolo*, indicates that Janggalan might have also been the place of an important person of Mataram. The naming of places based on names of important persons to identify domains is a common tradition in court centres.

(Fig. 4.4)



**Fig. 4.4** Spatial formation : 'Mataram Court Rule'  
(1) Burial site of Prince Puger; and (2) Demakan quarter

The *joglo* type timber houses of wealthy traders appear to have gradually developed, starting from much less decorated to the elaborately carved ones found today. Teak wood, the main material of these houses, was apparently obtained from the Jepara region. Other important structures are unknown. The site of the residence of Prince Puger is also unknown, but his burial site containing his tomb and that of his family can be found in Demakan quarter. Buildings for sheltering the tombs and a mosque were built in this site by Prince Puger's descendants in the early 1980's.

#### (5) 'Dutch Colonial Administration' : the late 18th century - 1942

During the first half of the eighteenth century, the Kudus region came under direct Dutch rule. K.R.A.A. Padmonegoro was appointed as the Regent of Kudus, a representative of the colonial government. The date is unknown; it possibly was in the

third quarter of the eighteenth century, considering that this first regent was a son-in-law of Paku Buwono III who ruled Mataram in 1749-1788. Subsequent regents, most of whom belonged to a single family, continuously ruled Kudus until the Japanese occupation in 1943.

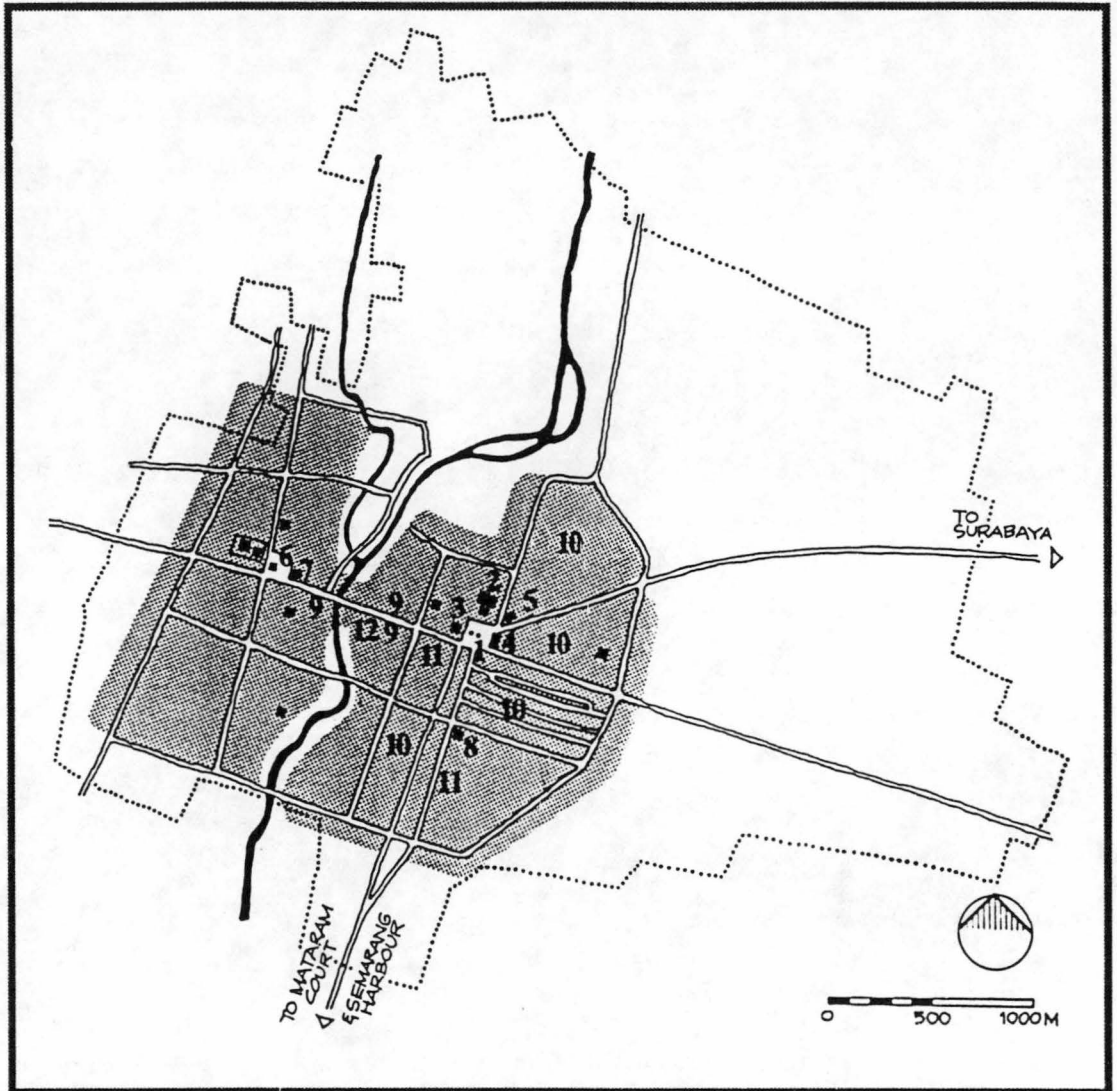
It is interesting that the socio-economic life of Kudus people seems to have continued to grow during the Dutch rule. This is probably because Kudus community had been established prior to the change of authority, and because the establishment of the Dutch colonial government in Kudus was much later than in most other Javanese towns. The spirit of devoutness and entrepreneurship also may have contributed to their socio-economic survival. Despite the development of the new town centre to the east, the population seems to have rapidly grown in the old town, consistent with the growing economy. The economic growth may have resulted from small-scale trade in agricultural products. People in the vicinity of Kudus, particularly traders of both indigenous and Chinese ethnicity, as well as other individuals of Indian, Persian, and Arabic heritage, may have started to migrate to both the old and the new town centres.

The Chinese may have begun to settle there during this period of Dutch influence. The fact that the present day Chinese community living in the old town, particularly around Madurekso square, are non-Moslem suggests that they are apparently not descendants of Kyai Telingsing, the Chinese Islamic preacher, who lived about a generation before the establishment of the old town.

The Dutch government established sugar cane plantations and built a sugar factory to the east of the new town. A number of farmers changed their occupation to work as factory labourers; thus, the sugar factory enhanced both migration and town expansion.

The culture appears to have changed as the community became more heterogeneous than in the earlier period. The varied communities of Kudus at this time comprised : (1) the original Islamic community in the central quarters of the old town, who mostly were descendants of the followers and pupils of Sunan Kudus; (2) the remaining Islamic community who possibly migrated in a later period to peripheral quarters of the old town; (3) the farming community in the surrounding region; (4) the Chinese community in Chinese quarters of the new town and along most major roads; (5) other foreign communities in specific quarters of the new town; (6) the Dutch government officials and factory administrators in the new town; and (7) other groups of new migrants from the adjacent areas in various quarters of the new town.

Some mixing, however, may have occurred, so that these groupings should not be seen as rigid. There is no trace of the Islamic Chinese community, although some individual descendants of Kyai Telingsing can still be traced. Sunggingan quarter, which possibly was the residence of Kyai Telingsing and the settlement of the earliest Chinese community in Kudus, has since been occupied by a mixed community.



**Fig. 4.5** Spatial formation : 'Dutch Colonial Administration'  
 (1) Town Square; (2) Regency Hall and administrative complex; (3) Town Mosque; (4) Market; (5) Cinema; (6) Shophouses on part of Madurekso Square; (7) Chinese Temple (West); (8) Chinese Temple (East); (9) Shophouses, mainly of the Chinese; (10) Town quarters; (11) Pecinan quarter; (12) Pekojan quarter

After the arrival of the Dutch, an administration centre of the regency government was developed on the east side of Gelis River. A new area was chosen rather than modifying the existing structure of Kudus town to the west, probably because the existing community and urban structure of the old town was so compact that it was difficult for the Dutch to intrude. The Dutch also wished to make their own distinct

community, as colonials generally do. As the town centre moved to the east, the role of Madurekso square as a public gathering centre and trading space apparently declined. The main economic activities shifted to the east, consistent with the growth of administrative and industrial activities. Houses and shops then developed along the perimeter of Madurekso square, consistent with urban population growth. A Chinese temple was built on the east side of Madurekso square. Other shops and houses, mainly owned by the Chinese, developed along the main road connecting the old centre with the new to the east. The old town apparently became more dense rather than expanding, while the new developed extensively, containing residential, administrative, commercial, and industrial quarters. (Fig. 4.5)

The new town was built in a plan typical of most other newly developed Javanese towns at the time, based on indigenous Javanese town patterns possibly derived from that of the royal court centres. This centre comprised a large civic square, with two banyan trees in the centre. A town hall, accompanied by residences of the regent and administrative offices, were built on the north side of the square, while a town mosque was situated to the west and a market place to the east. The town had a number of quarters occupied by particular groups. New Kauman quarter, whose toponym *kaum-an* means the place of Islamic religious community, surrounded the new town mosque. Pecinan, whose toponym *pe-cina-an* means the place of the Chinese community, was located along main roads and commercial quarters, as did Pekojan, whose toponym *pe-koja-an* means the place of Indian, Arabic, and Persian merchants. Another Chinese temple, which is bigger than that in the old town, was built in one of the Chinese quarters of the new town.

#### (6) 'Peak of Socio-Economic Growth' : during the 19th century

In the nineteenth century, Kudus was still under the Dutch colonial government. From a political viewpoint, no change of political system or administrative structure seems to have occurred. From a socio-economic viewpoint, Kudus had apparently been growing and gaining prosperity. In the east town, prosperity seems to have been limited to government officials, sugar plantation and industry administrators, as well as non-Javanese merchants, such as Chinese, Persian, Arabic, and Indian, who traded in textiles and other non-agricultural products. In the west town, on the other hand, prosperity was achieved by indigenous Kudus merchants.

The prosperity of indigenous Kudus merchants may have largely relied on small-scale trade in agricultural products. It possibly also partly relied on a kind of exploitation of agriculture commonly practised in Java at the time. In small-scale trade,



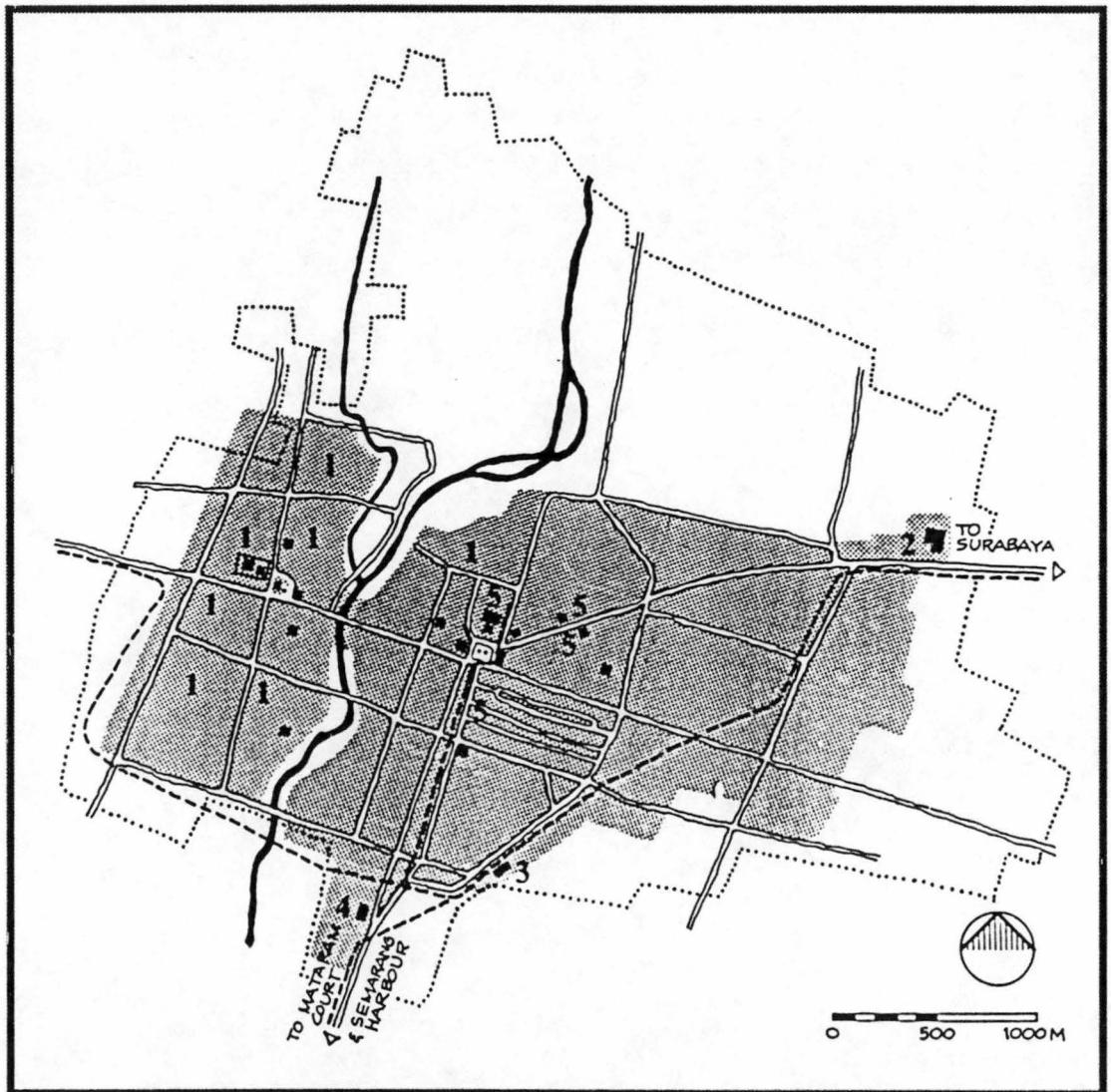
the main commodities were dry agricultural products, transactions were small, capitalisation was slight, and the traders travelled with their goods. There was a custom in which Kudus traders went out to other towns in their youth, in order to both trade goods and attend religious school, spending their whole life travelling and peddling, returning to their hometown to visit their families only at intervals and, finally, to retire. Kudus merchants practised buying agricultural commodities, storing them until their value appreciated, and selling them at favourable times. Tobacco was the favourite commodity, because its value increased with age. A type of commodity futures market developed : creditors bought an unripe crop, harvested and stored it, and sold later at a higher price. Kudus merchants also used to build up stocks of liquid assets for working capital so that a capital reserve was built up in the town. In addition to serving as capital, the financial reserve was usually used for pilgrimages to Mecca to become *haji*. Along the way to and from Mecca Kudus merchants apparently took opportunities to continuously trade goods and make contact with other merchant-pilgrims so that, after returning home, they became medium- or large-scale merchants.

The tradition of unifying two or more wealthy families through marriage ties was common. The typical reason seems to have been building up even greater capital reserves while strengthening family businesses. Wives and girls stayed home, practising light industry and handicrafts, such as *batik* and *songket* clothes, while husbands and boys were away trading, attending schools, or living in *pesantren*. Consistent with the inter-marriage ties, Kudus merchants practised an extended-family system, in which several blood-related families resided in a compound of several houses.

Prosperity gave an opportunity for wealthy merchants to build good quality timber houses. The compact and dense residential quarters of Kudus made impractical the building of vast palace houses common to the royal and aristocratic families of Mataram. Kudus merchants therefore built their houses with a much more compact and less complicated spatial organisation, yet distinguished them with elaborate carvings of a temple-like quality. Cultural contact with Mataram rulers and traders may have influenced the architectural tradition of Kudus houses, resulting in the common characteristics of indigenous Javanese spatial organisation and structural systems, *joglo* roof preference, and southern orientation. Wide cultural contact between Kudus merchants and both indigenous and foreign traders may have resulted in the plurality of motive styles evident in architectural carving, combining elements of indigenous Javanese, and possibly Persian, European, and Chinese styles.



The urban structure of Kudus town seems to have begun to expand at this time. Railways and new roads were built to provide access for the sugar cane industry and for the developing population. It is unclear, however, whether the new roads encircling the civic square were already in the seven-intersection pattern of today. For Kudus in general, this period may be the second peak of town development after the first peak when the town was established in 1549. For the old town, however, this was possibly the beginning of stagnation due to economic decline. As the new town square became a growing civic and administrative centre, the old town square declined, serving mainly as a religious centre. (Fig. 4.6)



**Fig. 4.6** Spatial formation : 'Peak of Socio-Economic Growth'  
 (1) Timber houses in West and East Kudus; (2) Sugar factory; (3) Railway station; (4) General hospital; (5) Colonial administrative offices

The quality of the urban structure, particularly that of the residential and commercial quarters, apparently also increased consistent with the growing prosperity. It is quite

possible that the good-quality timber houses were developed in this period. A number of houses may have been built on new lots. However, the fact that their location is mostly in the already established quarters suggests that most houses were probably built on the sites of previous ones of lower quality. As wealthy merchants tended to settle in residential quarters of the old town, most of the best quality timber houses were located in the old town. Most houses located along the streets apparently incorporated small shops which contributed to the viability of the town.

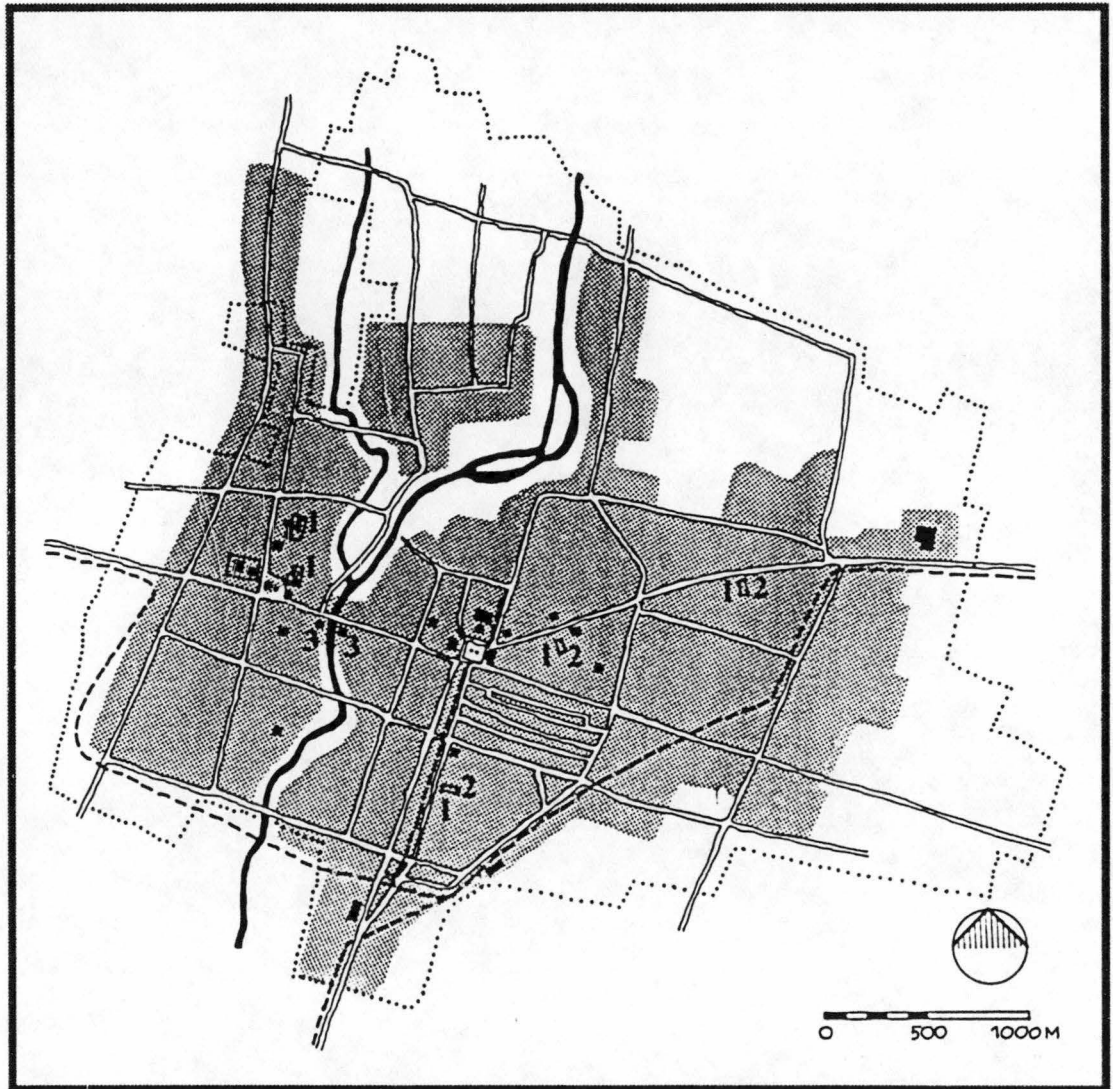
The timber houses may be classified into a number of types, based on their prominent architectural forms : roof form, relation with other houses, and openness to the surroundings. There are five basic types based on their roof forms, as discussed in Chapter 2, section 2.2.2. There are individual houses and row houses. The row houses may have been intended to accommodate extended-families. The houses may be distinguished as either enclosed or open. High plastered-brick walls with one or more gates surround enclosed-type houses, while low shrubs or other low transparent fences without gates indicate boundaries of open-type houses.

#### **(7) 'Rise and Growth of Clove Cigarette Industry' : the late 19th - the early 20th century**

In this period, Kudus was still under Dutch colonial rule. There was little change in either the political situation or cultural activities. Socio-economically, on the other hand, the rise and growth of the clove cigarette industry occurred. This probably changed the life of most Kudus inhabitants, promoted Kudus as the place of origin of the clove cigarette, and made Kudus nationally identified with its manufacture. The identity of the original developer of the clove cigarette is difficult to establish. Apart from several versions of stories concerning the founder, the clove cigarette possibly resulted from a long process of trial and error by many Kudus traders.

Three main factors may have underlain the development of the clove cigarette trade in Kudus : an existing spirit of entrepreneurship, adequate capital reserves, and an established small-scale tobacco trade. The clove cigarette trade had apparently fulfilled both the industrious nature of Kudus traders and the demand for more capital-intensive industry. The industry developed from small-scale trade involving individual merchants to an industry involving a number of manufacturers and employing a larger number of labourers. Among these manufacturers, Nitisemito, who built his clove-cigarette factory in 1908, is apparently the most prominent. Most larger clove cigarette factories were built in the east town, probably due to availability of land. These factories seem to have easily attracted labourers, particularly women from sur-

rounding villages. In turn, the excess supply of labour has apparently enhanced the growth of the industry. The construction of warehouses and factory buildings affected the urban pattern, because these buildings are of larger scale than the houses of the residential surroundings. Tobacco warehouses were built in the old town, while clove-cigarette factories were constructed in the east town, using plastered clay brick and clay roof-tile as the most prominent materials.



**Fig. 4.7** Spatial formation : 'Rise and Growth of Clove Cigarette Industry  
(1) Tobacco warehouses; (2) Clove cigarette factories; (3) Nitisemito's "twin houses"

The urban structure of Kudus town seems to have expanded at a slower rate than in the previous period. Any expansion was mainly to the north, probably due to swampy land in the other directions. Even though timber houses were continuously built, they seem to have decreased both in quantity and quality. This was probably due to the influence of the Dutch which led to a preference for European-style brick houses. The most notable architectural remains of this period are two houses built by

Nitisemito at the peak of his prosperity. He built two grand European-style houses, which were popularly called the "twin houses". These houses are located on both sides of the Gelis River, appearing as mirror images of one another on either side of the river. (Fig. 4.7)

#### **(8) 'Socio-Economic Decline' : the mid 20th century - the early 1970's**

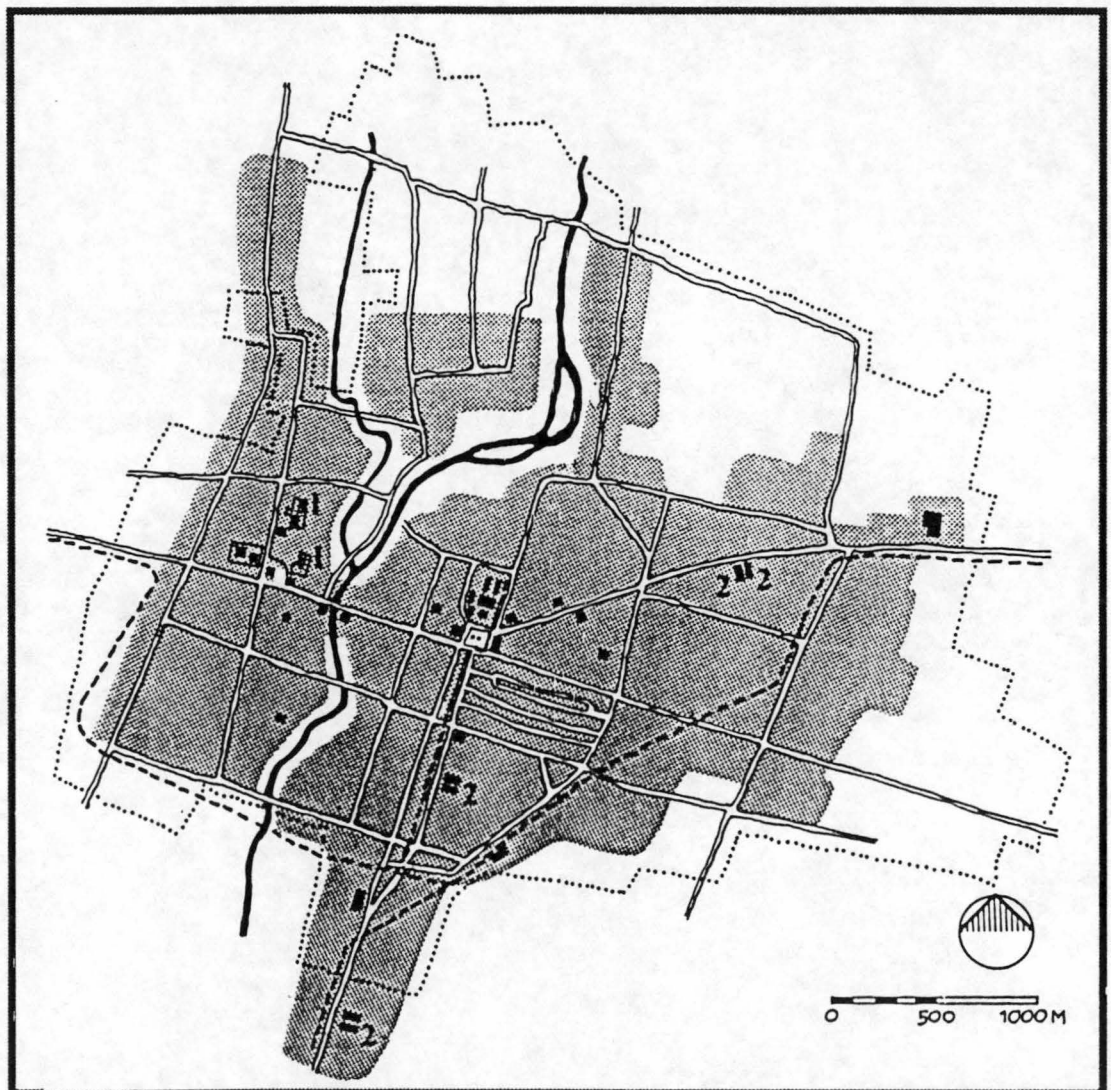
The first socio-economic success of Kudus in the tobacco and clove cigarette industries apparently did not last longer than a generation. Kudus suffered from several changes of rulers and administrators, consistent with the fluctuation of the political situation which generally occurred in Indonesia during this period. The Dutch colonial government held power until the arrival of the Japanese in 1942. The Japanese took power in 1943 and appointed a new regent who was not a descendant of the previous regency family. Soon after the proclamation of Indonesian independence and the formation of the Republic of Indonesia in 1945, another new regent was appointed as a second level regional government under the first level of Central Java Province and under the national government of the Republic of Indonesia. Only a year later, another regent was appointed for three-year administration from 1946-1949. The Indonesian communist party took over Kudus in 1948. When the government changed into the Federal Republic of Indonesia in 1949-1950, Kudus was once again under a federal regent. When a republican government was again formed in 1950, Kudus finally regained its status as a regency (*kabupaten*), a regional centre of national government. The communists once again launched a rebellion against the government of the Republic of Indonesia in 1965 leading to a period of instability in Kudus until the early 1970's.

The unstable political situation affected the development of industry in Kudus and, consequently, influenced its general socio-economic situation. Kudus inhabitants suffered from difficulties in selling goods; they were more concerned with political campaigns and general elections than economic activities. The tense political situation, moreover, seems to have led to an increase in partisanship and ethnic conflicts. A riot between the indigenous Kudus people and the Chinese occurred in 1930.

A national tax system was imposed soon after Indonesian independence. The Kudus clove cigarette industry apparently could not survive the new tobacco and cigarette taxes. This industry, which had been the most important factor in Kudus' economic viability, therefore declined. Most tobacco merchants ceased their activities, while cigarette manufacturers closed their factories. In addition to the passage of the new tax system, other factors may have contributed to the decline of tobacco and clove

cigarette businesses. There seems to have been a lack of professional management to handle the family-based businesses in their second generation. This may have created disputes among descendants of tobacco merchants and clove cigarette factory owners with respect to family inheritance. Few factories have survived in the east town.

The decline of tobacco trading apparently affected urban and architectural resources, particularly those of the old town. As the few remaining clove cigarette producers were in the east town, the activity of tobacco storage was also moved to the east, resulting in the abandonment of the tobacco warehouses in the old town. (Fig. 4.8)

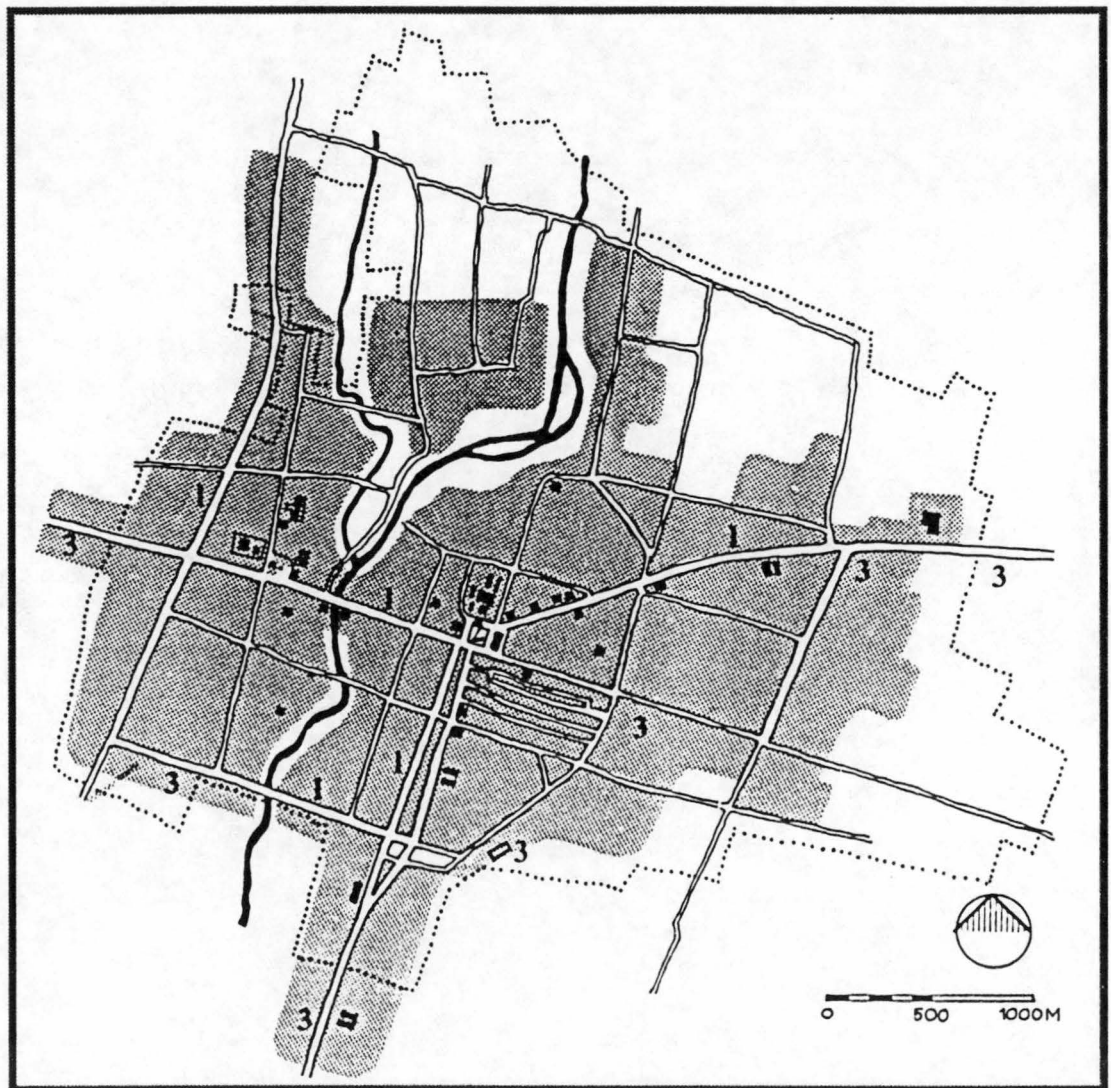


**Fig. 4.8** Spatial formation : 'Socio-Economic Decline'  
(1) Declining tobacco warehouses in West Kudus; (2) Surviving clove cigarette factories and tobacco warehouses in East Kudus



The descendants of the then prosperous merchants, particularly those of the third generation onwards, were less able to purchase individual houses, resulting in congestion in the historic district. The problem of family inheritance further led to the sales of these houses to other families. Row houses, which were originally occupied by an extended family, were then occupied by several different families, while individual houses were occupied by an extended family of three or more generations. The timber houses suffered from additions and alterations, consistent with population growth. The lack of appropriate maintenance, moreover, seems to have led to physical decay of both timber houses and public facilities in the old town.

(9) 'New Urban Development' : the mid 1970's - the mid 1980's



**Fig. 4.9** Spatial formation : 'New urban Development'  
(1) Widened and "beautified" roads and streets; (2) "Simpang Tujuh" square with no banyan trees; and (3) Declining railway station and network

The socio-economic situation of Kudus started to improve again in the early 1970's, consistent with the general stability of the political situation. The few remaining clove cigarette factories grew larger, even though, in some cases, ownership changed. Among the successful manufacturers, the four largest are Djarum, Sukun, Narayana, Djambu Bol, all of which are unionised. Other large modern textile and printing industries then developed in Kudus, which have made Kudus a small industrial city.

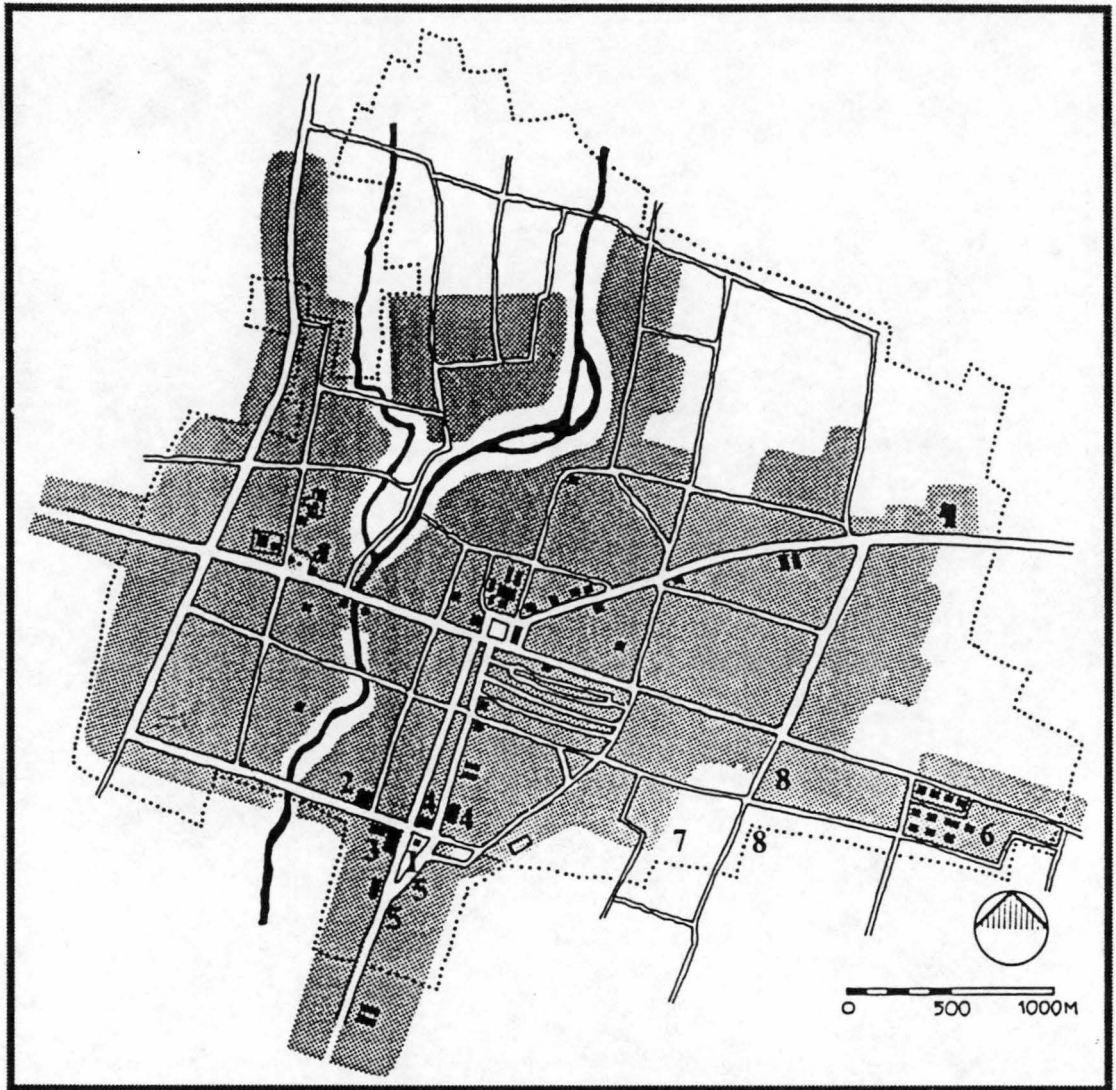
Traffic rapidly grew in line with growing business and industrial activities. Motor vehicles prevailed as the principal means of transport, replacing the train, so that roads and bus and truck terminals became much more important. Railways and the railway station lost their significance. Railways were often buried under both new and widened roads, while the station was left vacant. (Fig. 4.9)

The local government of Kudus Regency launched a programme of town beautification called the Kudus Urban Development Programme in 1975. This programme consisted primarily of widening the main roads and planting trees along these roads. The road encircling the civic square were also widened and improved. Seven roads lead to the square, resulting in today's popular name of this square : "seven crossings" (*Simpang Tujuh* ).

#### **(10) 'Contemporary Urban Development' : the late 1980's - the present**

Kudus town has been rapidly developing since the late 1980's, at a faster rate than adjacent small towns within the northern coastal region of Java. This is due in part to the launching of a regional development programme, the Central Java Capital City Integrated Industrial Development Programme, by the regional government of Central Java Province in the early 1980's. The programme, covering towns along the north coast of Central Java, provided an opportunity for Kudus to further develop its industrial resources. This industrial development has resulted in the rapid growth of commercial activities and traffic which demanded both urban expansion and traffic infrastructure.

Since the western part of Kudus consists of the old town while the northern part leads to the natural heritage of Mount Muria, the southern and eastern parts have been the favoured areas for urban expansion. Kudus has grown horizontally, as is typical in Javanese town development, rather than vertically. (Fig. 4.10)



**Fig. 4.10** Spatial formation : 'Contemporary Urban Development'  
(1) Identity Plaza and Monument; (2) New market; (3) Department stores; (4) Private offices; (5) Small-scale shops; (6) Government office complex; (7) Sports and recreation centre; and (8) Housing complexes

Kudus seems to be reaching a third peak of development. Earlier peaks were shortly after establishment in 1549, and when the east town was developed in the late eighteenth century.

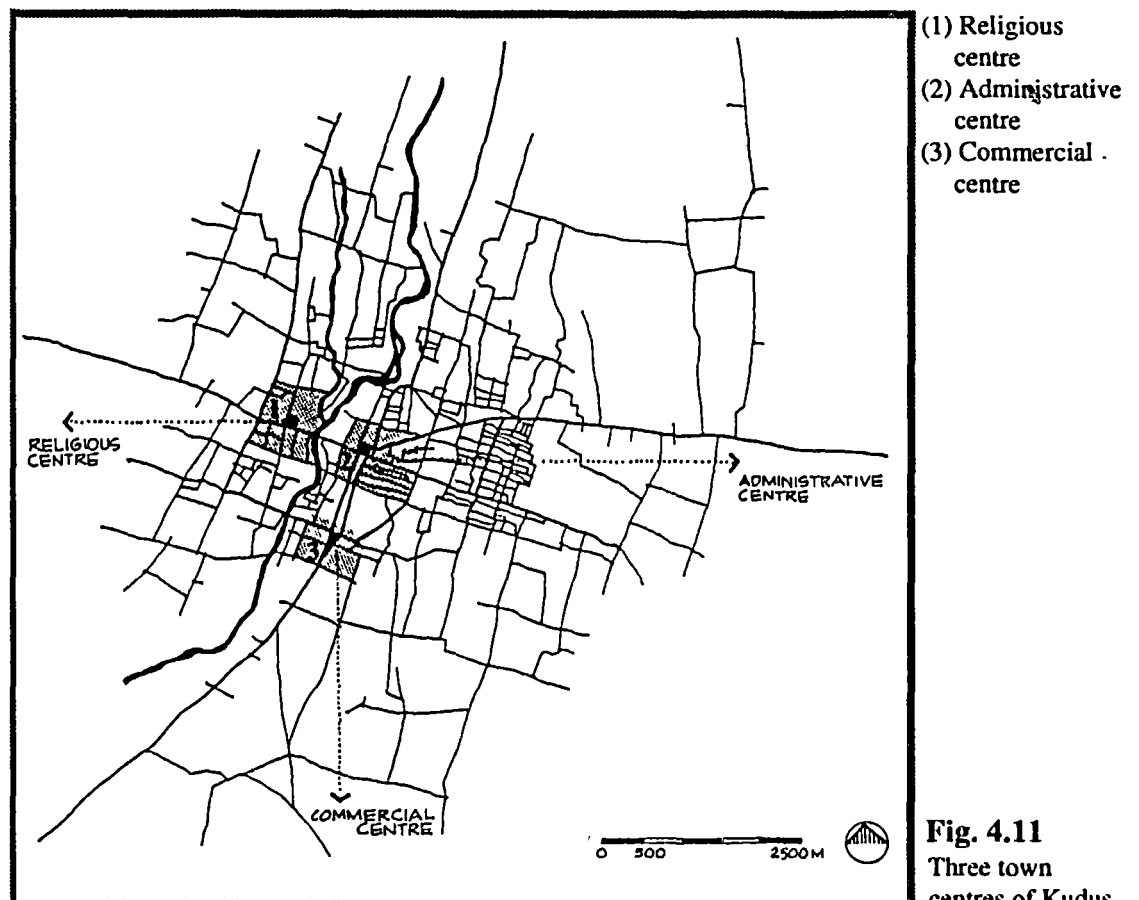
## 4.2 Towards a General Inventory

The analytical component of this conservation model includes both a study of historic context and an inventory of physical resources. Generally, the historic context should be prepared first, although it may be more practical to carry out both activities simultaneously.



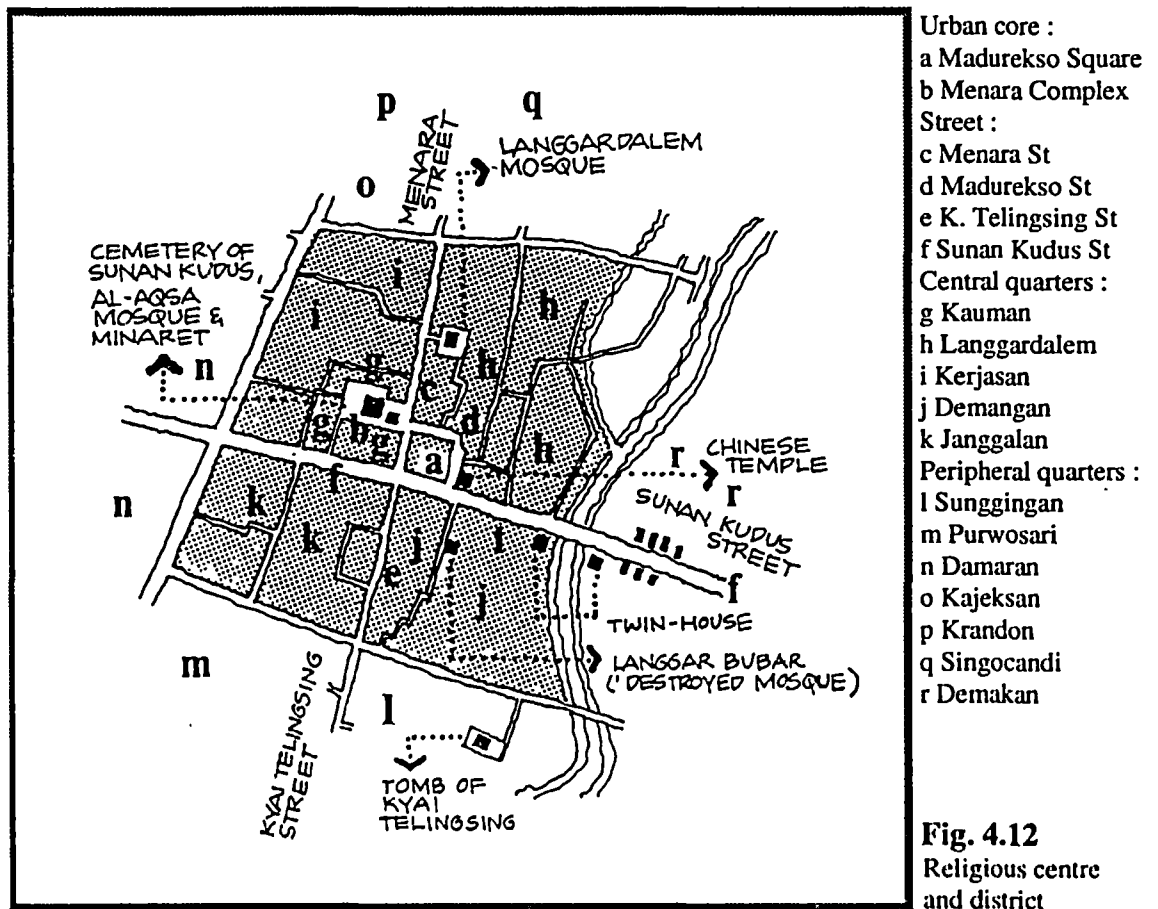
The inventory process has begun with the unillustrated list of timber houses initiated by the Regency in 1983. The list needs updating and should be extended to include greater architectural and historic detail, as well as descriptions of a broader range of building types within the Islamic district. The model requires a complete inventory of urban and architectural resources. This inventory should consist of resource types representative of the historic themes which, accordingly, can provide broad information about the physical evidence related to the historic context. This will be an invaluable source for the development of a strategy for protecting the critical resources, as well as an important basis for the consideration of priorities for immediate protection programmes.

Naturally, a complete heritage inventory of this town would require an extensive commitment of time and human resources. Such an inventory is essential for the effective application of other aspects of the model, but the quantity of field research required places it beyond the capability of this study. However, in this study some basic parameters for such an inventory are included, important sites and boundaries are identified, and visual and written information is given to relate sites to historic themes established in the previous section.



The urban pattern of Kudus town clearly shows three civic centres within three districts, each of which appears to have a distinct architectural character. The three centres and districts play different roles in the town's history and have been developed in different periods, reflecting three peaks in Kudus' urban development. The three centres are : (1) the early sixteenth century religious centre developed as an Islamic religious town by Sunan Kudus; (2) the early nineteenth century administrative centre developed as a colonial administrative centre by the Dutch in the late eighteenth and the early nineteenth century; and (3) the recently established commercial area developed since the late 1980's. (Fig. 4.11)

#### 4.2.1 Religious Centre and District



The religious centre is situated in the oldest district now popularly known as "old town", "West Kudus", or "Kudus Santri". It consists of two distinct elements : Madurekso Square, which has a banyan tree in the centre and a small mosque at the western end, and Menara Complex, which contains Menara Kudus, al-Aqsa Mosque, and the cemetery of Sunan Kudus. (Fig. 4.12)

Madurekso Square may have originally been a market place and public gathering space for the earlier community before the establishment of the town. The development of some houses and shops along its perimeter may date back to the late eighteenth century, when the importance of this square decreased due to the moving of the town centre to the east. The square was converted to a parking space in the early 1970's. Other buildings, such as a bus terminal shelter, a public toilet, a library, an artists club, and a cooperation craftsshop have since been built within the square. Menara Complex, which is situated to the north west of Madurekso Square, contains religious buildings believed to have been established by Sunan Kudus, although the minaret may have originally been a part of a Hindu temple complex. Despite some incompatible additions and alterations, this complex has generally been well-maintained by the community following the *waqf* tradition.

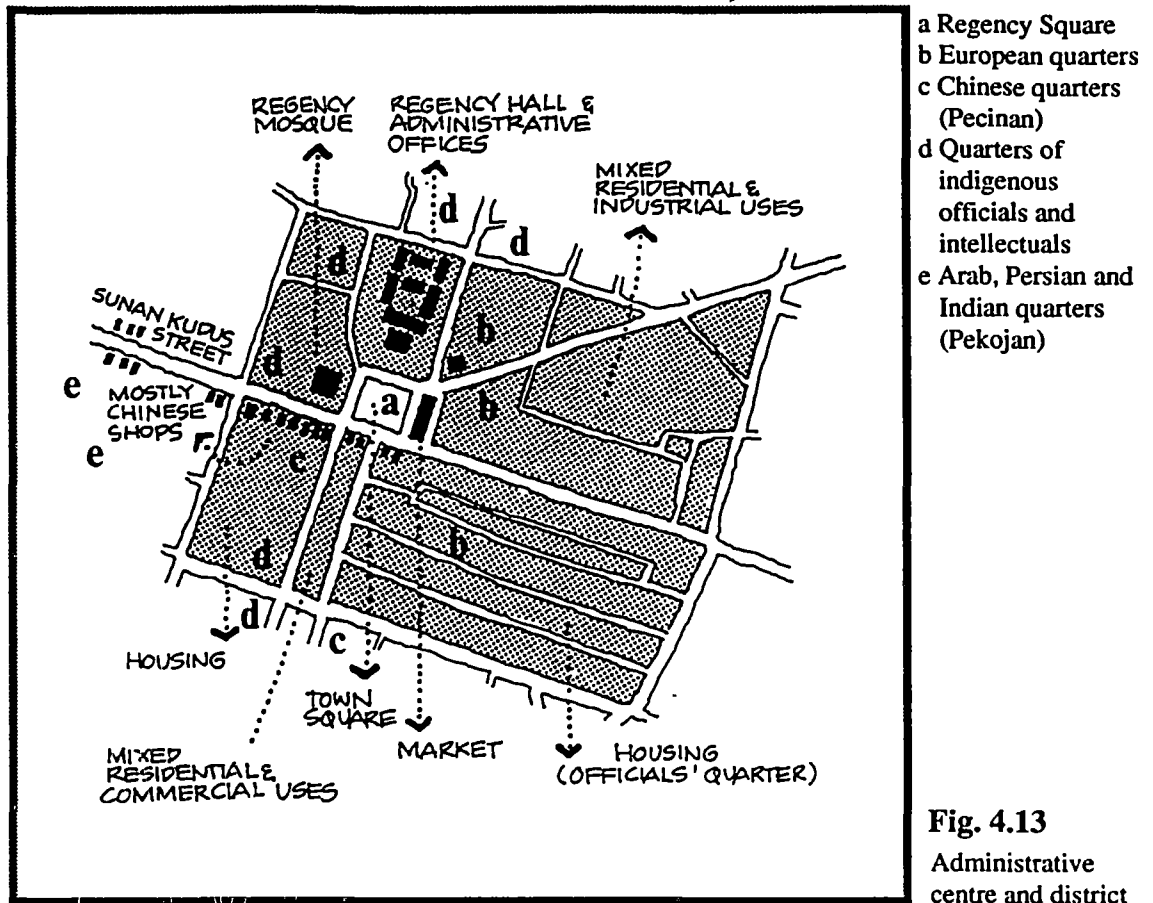
A religious district, which is urban in character, surrounds the religious centre. It consists of five central quarters : Kauman, Langgardalem, Kerjasan, Demangan, and Janggalan. A further seven quarters form a peripheral area : Sunggingan, Purwosari, Damaran, Kajeksan, Krandon, Singocandi, and Demakan. Kauman, which is situated to the west of Madurekso Square, and Langgardalem, which is situated to the north of the square appear to have developed into an urban form much earlier than Sunggingan. The latter developed later, even though it may have been settled by the earliest Islamic community.

Kauman quarter surrounds Menara Complex, and covers an area of about a hundred metres in radius. This quarter originated from a residential area settled by the pupils and followers of Sunan Kudus in the mid sixteenth century. Langgardalem quarter also originated as a residential area of pupils and followers who settled around Sunan Kudus' residence. The oldest mosque in this quarter, Langgardalem Mosque, may have originally been a private mosque of Sunan Kudus as part of his residence. The site of his residence has not been established.

#### **4.2.2 Administrative Centre and District**

The administrative centre is situated to the east of the religious centre in the district popularly known as 'East Kudus', 'Kudus *Priyayi*', or sometimes 'the Regency Centre'. The most distinct element of this centre is a public square, surrounded by the town mosque to the west, the Regency Hall and a complex of government offices to the north, a cinema to the north-east, a market to the east, and shops to the south.

(Fig. 4.13)

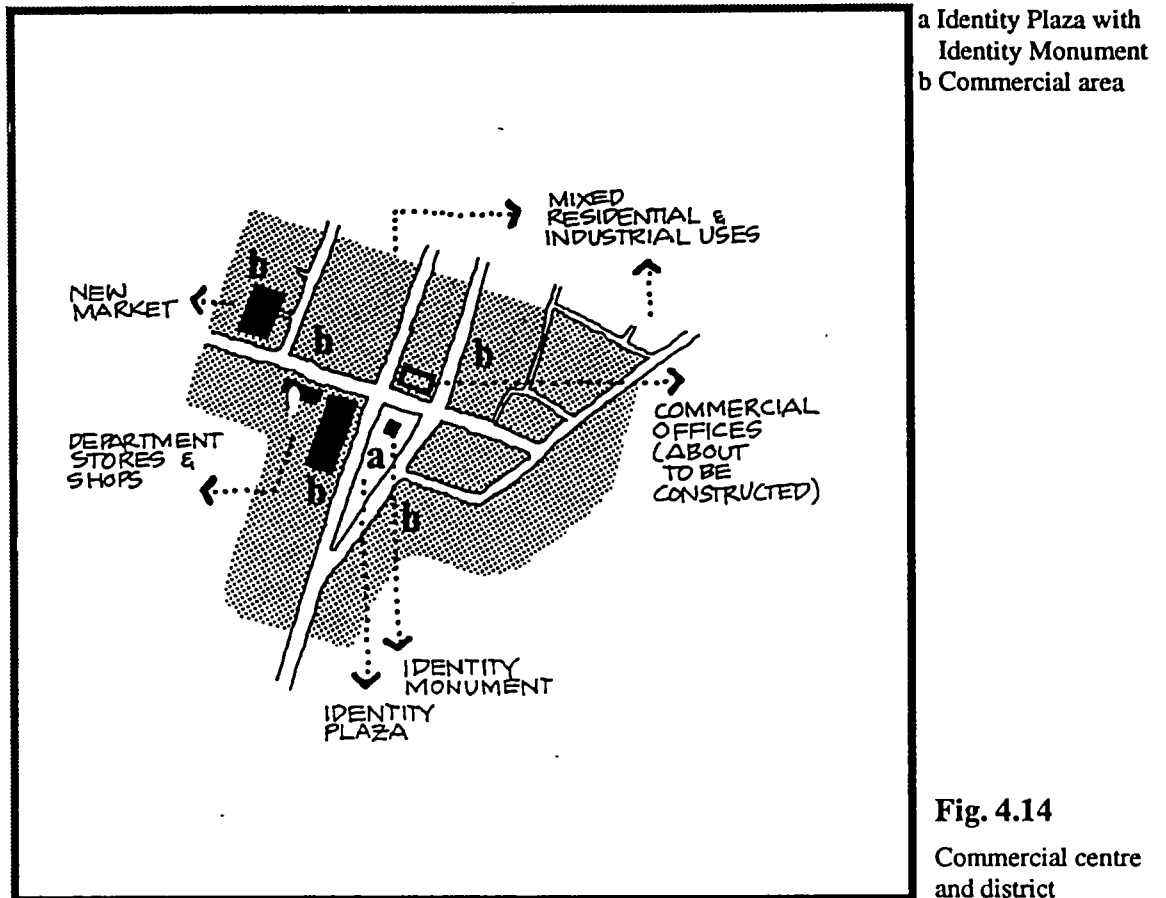


The square, also known as 'Regency Square' or 'Town Square', originally had two banyan trees in the centre. It is not clear, however, whether these trees died naturally or were pulled down during development of the square. Seven major roads lead to this square, forming the well-known "seven crossings".

The administrative district expands to the north, east, and south of the centre. It not only contains government administrative buildings, but also areas of mixed residential, commercial, and industrial use. During its establishment in the late eighteenth century, the east town was divided into quarters, based primarily on the social structure at the time which was ethnically divided. These include European quarters, Chinese quarters, quarters for indigenous officials and intellectuals, and quarters for other foreigners such as Arabs, Persians, and Indians.

#### 4.2.3 Commercial Centre and District

The commercial centre, which has been rapidly developed since the late 1980's, is situated to the south of the administrative centre. This centre includes the former bus terminal and its surrounding areas.



The former bus terminal was redeveloped to serve as a public open space. Along with the minaret-like structure called Identity Monument of Kudus, this public space has become the most distinct element in the town, popularly known as Identity Plaza. This plaza is surrounded by four-storey commercial buildings including a market, contemporary department stores, and small-scale shops. At the time of this study, a number of office buildings were under construction. (Fig. 4.14)

### 4.3 Assessment of Cultural Significance

The architectural heritage of Kudus includes a wide range of urban and architectural resources as revealed by the preliminary inventory above. A further assessment is needed to establish priorities for conservation action.

Assessment includes the analysis and grading of heritage areas and sites according to cultural significance and contextual factors. This process assists in preparation of a more detailed inventory, and guides policy by establishing priority areas and sites. Assessment considers a set of cultural values to establish cultural significance. Con-

sideration of contextual factors provides additional information to assist in grading sites.

The procedure of the assessment, therefore, involves : (1) assessment of each area and site according to criteria of cultural significance; (2) establishment of individual statements of their significance; (3) examination of each area and site according to threatening contextual factors; and (4) prioritising sites for protection by comparing the cultural significance and the contextual factors.

#### **4.3.1 Notes on Criteria for Assessment**

The assessment relies on an understanding of the historic context of the areas and sites. Historic values are embodied in the fabric and setting of places, and in documentary records. Values may also be expressed through associational links, both historic and symbolic, in cases where there is no surviving evidence. The assessment reveals the way in which the existing fabric and cultural association demonstrate historic activities, processes, events, and customs, spatial, formal, and visual qualities, technological and scientific representativeness, as well as spiritual and symbolic meanings.

The criteria of cultural significance suggested by the Burra Charter provide a useful framework for the assessment. They encompass all values without being mutually exclusive. Applied to the Kudus case, the criteria derived from the Burra Charter can be described as follows :

##### *Historic value :*

- important in demonstrating a particular pattern in the course of the cultural history of Kudus as representative of historic events, activities, process, or customs;
- having special association with the life of a community of importance in the course of the cultural history of Kudus in particular, or of Indonesia in general;
- having special association with the life of a person or persons of importance in the course of the cultural history of Kudus in particular or of Indonesia in general.

##### *Aesthetic value :*

- important in responding to aspects of sensory perception, including spatial, formal, and visual qualities, as well as sounds and smells, valued by the Kudus community in particular, or Indonesians in general;

- important in exhibiting a high degree of creative or technical achievement at a particular period in the the cultural history of Kudus in particular or of Indonesia in general.

*Social value :*

- important in presenting a particular way of life or social custom of the Kudus community in particular or of Indonesians in general;
- important as a focus of particular religious sentiment in the Kudus community in particular or Indonesia in general;
- possessing strong symbolic or spiritual association with the cultural history of Kudus in particular or of Indonesia in general.

*Scientific value :*

- demonstrating uncommon, rare, or endangered aspects of the cultural history of Kudus in particular or of Indonesia in general;
- possessing potential to yield information that will contribute to an understanding of the cultural history of Kudus in particular or of Indonesia in general;
- important in exhibiting the principal characteristics of a type of cultural environment of Kudus in particular or of Indonesia in general.

**The contextual factors** threatening the architectural heritage of Kudus include physical, economic, social, and political pressures. They can be described as follows :

*Physical factors :*

- physical decay of existing buildings and urban structures due to natural weathering effects common to the tropics;
- physical decay of existing traditional buildings and urban structures due to a lack of appropriate maintenance, which is considered to be resource-consuming, requiring expensive materials, long time periods, and special craftskill;
- scarcity of newly constructed traditional buildings due to the scarce supply of traditional building materials, particularly good quality timber, and the decline of traditional building skill and practice;
- unsympathetic changes in urban character due to frequent alteration of existing buildings and structures, as well as construction of newer incompatible ones;
- physical degradation of public spaces and facilities due to insufficient utilities and services, as well as a lack of proper maintenance of existing facilities.

*Economic factors :*

- destruction of buildings and urban structures due to the sale and dismantling of traditional buildings as a result of the rising value of such buildings;
- financial pressures on owners to sell houses for removal due to the low income levels in the historic district;
- difficulty in distributing inherited property among the heirs;
- physical decay of older buildings and urban structures due to inability of inhabitants to afford high maintenance costs.

*Social factors:*

- dereliction of older buildings and urban structures due to their inability to accommodate changing housing needs;
- popular fascination with contemporary forms of housing and urban design;
- replacement of older buildings and structures with those which are incompatible with the overall urban character.

*Political factors :*

- unsympathetic changes to the urban environment due to exclusion of architectural heritage protection from government urban development, town beautification, and tourism development programmes;
- physical degradation of older urban structures due to the low priority given to conservation in the urban planning process;
- neglect of older urban structures due to the widespread view of historic areas as "slums" and the emphasis on cleanliness, order and beauty in the urban environment.

#### **4.3.2 Assessment of Significant Urban Areas**

The urban areas assessed are those identified in the general inventory, comprising the religious district, the administrative district, and the recently developed commercial district. The religious district encompasses the area surrounding the religious centre, known as the old town, West Kudus, or as the *Kudus Santri* area (suggesting the Islamic orientation of the inhabitants). This area is described in Fig. 4.12. The administrative district covers the area surrounding the administrative centre, also known as the East Kudus area (Fig. 4.13). The commercial district comprises the area surrounding the contemporary commercial centre, also known as the Identity Plaza area (Fig. 4.14).



The assessment phase should be supported with a complete written and graphic presentation. For the purposes of this study, an example is given in summarised form as follows:

### **(1) Religious District**

#### **Assessment of cultural significance :**

*Historic value.* The religious district exhibits a unique urban and architectural pattern and its inhabitants demonstrate traditional communal ways of life representative of the development of sixteenth-century Islamic towns in Java and the customs of the nineteenth-century wealthy Javanese Muslim traders. The district and the Old Kudus community is one of the foci of the spread of Islam in Indonesia; it has strong associations with the life of an Islamic religion-oriented and trade-centred society, and of Sunan Kudus, one of the most notable Islamic saints in Java.

*Aesthetic value.* The urban space and structure of the religious district strongly demonstrate the Javanese concept of traditional space and form. The district is situated next to a river, and its spatial arrangement shows orientation towards mountain and floodplains (an adaptation of the traditional Javanese mount-sea orientation), and the four cardinal directions. The crossroads of three major streets and an open space under a banyan tree constitute the urban core, and serve as the centre for public gathering and bartering goods. Residential quarters surround this core, subsequently encircled by agricultural areas. This area's compact urban form and the ancient minaret, mosques and cemeteries, which are its key structures, exhibit a high degree of creative and technical achievement characteristic of sixteenth-century Islamic towns of Java. The architecture of the key buildings exhibits the amalgamative nature of the Javanese culture, showing a combination of both pre-Islamic and Islamic architectural elements and styles. The art of woodcarving integrates the indigenous Javanese decorative style with Chinese, European and Islamic styles. Narrow streets and alleys, lime-washed plastered-brick walls with gates, and elaborately carved timber houses, most of which are hidden inside high walls, with inner yards planted with various fruit trees, constitute the primary architectural elements of the district. School children and other residents in Muslim dress and the sound of Islamic chants from mosques and houses create a specific atmosphere.

*Social value.* The religious district contains a society which has a strong religious way of life and distinct social customs emphasising a spirit of entrepreneurship. The role played by Sunan Kudus, his pupils and followers, who were the original settlers,

in the proselytisation of Islam and the establishment of the Islamic town have made the district a focus of religious sentiment throughout Java. An Indonesian pilgrimage destination, the place possesses strong symbolic and spiritual values associated with Islamic history of Java.

*Scientific value.* The religious district has uncommon and endangered urban and architectural resources, and a traditional communal ways of life facing a process of change; it possesses potential to yield information that will contribute to the understanding of the history of Kudus' urban form and the social and economic history of Kudus and Indonesia. It is one of the earliest Islamic towns of Indonesia. The district exhibits principal characteristics of traditional settlement and dwelling types of Indonesia; it is one of the few Indonesian traditional urban environments remaining intact. Architectural and historical information pertaining to the district serves as a valuable source of comparative study for research on Indonesian and other vernacular towns.

#### **Statement of significance :**

The religious district provides evidence of the peaceful introduction of Islam into Indonesia, particularly Java in the sixteenth century. It is a rare example of an intact traditional urban environment of Indonesia; it also contains rare examples of key structures which demonstrate the amalgamation of pre-Islamic and Islamic architectural elements and styles, and dwelling patterns and timber houses which were developed based on Javanese architectural traditions. The elaborately carved timber houses are evidence of the prosperity of the former residents of the district who were wealthy Muslim traders. The art of woodcarving is evidence of the amalgamative nature of Kudus decorative art.

#### **Consideration of contextual factors :**

*Physical factors.* Existing buildings and urban structures of the religious district -- timber houses, facades of Menara and Kyai Telingsing streets, Madurekso Square, and alleys in the residential quarters -- suffer from physical decay due to natural weathering and lack of appropriate maintenance. Degradation of urban character and architectural quality is caused by frequent alteration of existing buildings and structures, construction of newer incompatible ones, insufficient public utilities and services, and improper maintenance of existing facilities.

**Economic factors.** Continuing sale, dismantling and removal of traditional timber houses has let the architecture of the religious district fall into disrepair. Inability of the inhabitants to afford the high maintenance cost of the houses and environs has resulted in physical decay, as well as greater pressure to sell the houses.

**Social factors.** Changing needs and ways of life of the inhabitants and a fascination with contemporary design and construction has resulted in the dereliction of older buildings and urban spaces. Assumed inability of these buildings and structures to accommodate contemporary needs has led to their replacement with newer ones which are often incompatible with the overall urban character of the district.

**Political factors.** A concern for architectural heritage protection has been excluded from government programmes of urban development, town beautification, and tourism development. This has led to the religious district losing its significant buildings and structures. Priority has been given to contemporary buildings and urban environments in other newer districts of Kudus. Emphasis on cleanliness, order and beauty in the urban environment has resulted in neglect of older urban structures which are considered as "slums".

## **(2) Administrative District**

### **Assessment of cultural significance :**

**Historic value.** The administrative district reflects the history of the Dutch colonial administration in Kudus from the late eighteenth to the early twentieth century. General division of the urban quarters demonstrate the differing occupations, ethnic groups and social structures of the society at the time.

**Aesthetic value.** The urban space, form and visual quality of the administrative district demonstrates typical nineteenth-century administrative town planning of Java. The buildings and structures exhibit a mixture of architectural styles including indigenous Javanese, and Chinese and European-influenced styles. White-washed plastered-brick walls, clay-tiled roofs and ample vegetation are dominant elements of the town. Groups of female labourers from local clove-cigarette factories and the smell of clove and tobacco create a specific atmosphere in parts of the district.

**Social value.** The administrative district of Kudus originally demonstrated typical social customs of a mixed society consisting of Dutch administrators, Javanese officials and intellectuals, Chinese and other foreign traders, and commoners. The dis-

trict possess symbolic value associated with former Dutch colonial rule. The district has been a centre of tobacco trading since the seventeenth century and of Indonesia's clove-cigarette industry since the late nineteenth century. Today's administrative district of Kudus is similar to other Indonesian towns.

*Scientific value.* The urban form and structure of the administrative district offers a typical example of nineteenth-century Javanese town planning. The district has potential to yield information for Javanese urban history and urban planning research.

#### **Statement of significance:**

The administrative district provides evidence of the prevailing Dutch rule over Javanese towns in the colonial history of Indonesia; it is a typical example of nineteenth-century urban environments in regency towns developed by the Dutch based on indigenous Javanese urban planning traditions. The buildings and urban design elements demonstrate a mixture of Javanese, Chinese and European-influenced styles, while the urban quarters reflect the society of the time which was categorised according to differing classes, occupations and ethnic groups.

#### **Consideration of contextual factors :**

*Physical factors.* The administrative district has been the focus of contemporary urban development programmes, which start in the 1970's. Despite the "success" of town beautification programmes in terms of modern urban planning, alterations over time and recently developed urban sprawl have resulted in the district losing much of its character as a nineteenth-century regency town.

*Economic factors.* The rising land values in the district may lead to pressure to demolish the single-storey older buildings and replace them with larger buildings.

*Social factors.* Inability of older buildings in the district to accommodate changing user needs and services may lead to further alteration of the urban form. Fascination with contemporary urban environments may lead to the replacement of older buildings and structures with newer ones which are often incompatible with the overall urban character.

*Political factors.* Government planning focus on urban development and town beautification may lead to the loss of the district's nineteenth-century urban character.

### **(3) Commercial District**

#### **Assessment of cultural significance :**

*Historic value.* The district was originally part of the administrative town; its original key structures -- the general hospital, railway station and residential quarters -- demonstrate a strong association with the history of Dutch administration. The recently developed commercial district demonstrates the development of contemporary Kudus.

*Aesthetic value.* The urban spaces and buildings of the district predominantly demonstrate contemporary international-style architecture and planning.

*Social value.* The district reflects the way of life of contemporary Kudus society. It is a focus of communal pride, reflecting the rapid economic and commercial development of Kudus compared to adjacent towns on the northern coast of Java.

*Scientific value.* The district can provide information for urban planning studies of Kudus; it demonstrates the contemporary phase of Kudus urban development, which is an inseparable part of Kudus urban history.

#### **Statement of significance :**

The commercial district contains evidence of the rapid economic and commercial development of contemporary Kudus; it is a typical example of contemporary Indonesian urban environments, which are developed using largely international architectural styles. Its role as a symbol of rapid urban development makes this district socially significant to Kudus residents.

#### **Consideration of contextual factors**

*Physical factors.* Continuing development of contemporary buildings and structures in the district could lead to total redevelopment and the loss of its original urban architectural character as part of the administrative district..

*Economic factors.* Economic and commercial factors have given rise to pressure for to replace most older buildings of this district with medium-rise newer building.

*Social factors.* Concern that contemporary buildings in the district will be unable to accommodate changing user needs may lead to further alteration of the urban environment of the district. Preference for contemporary urban forms contributes to the replacement of older elements with newer, often incompatible ones.

*Political factors.* The focus of government programmes on urban redevelopment places the district's nineteenth-century urban character at risk.

#### **(4) Priorities for Urban Conservation**

While all three districts are of cultural significance, comparison of the above assessment factors indicates that the religious district should receive the highest priority in conservation planning and intervention.

#### **4.3.3 Assessment of Significant Sites**

Naturally, the assessment should include all significant sites situated in the three significant urban areas. Considering the limited resources and the academic nature of this study, however, only sites in the most significant area are included as an example. This comprises the following significant sites located in the Islamic district of the old town of Kudus : (1) the old public open space, consisting of Madurekso Square with the banyan tree, and Madurekso Mosque; (2) the main public religious complex, known as the Menara Complex, consisting of al-Aqsa Mosque, Menara minaret, and Sunan Kudus' cemetery; (3) the streets, including Menara Street, Kyai Telingsing Street, Madurekso Street, and Sunan Kudus Street; (4) the traditional timber houses located in the residential quarters of the district; and (5) the central residential quarters of the district. These sites have been identified as most representative of the historic themes identified in Chapter 3.

**Madurekso Square.** This square is important as the core of the pre-Islamic settlement of Kudus, and remains an important place for public gatherings. A number of typical Javanese architectural elements remain intact, in spite of changes in use and construction of new buildings. Government interest in developing this space, pending development of adjoining Menara Street, and conflicts over ownership make protection of the square critical.

**Madurekso Mosque.** Oral history associates the mosque with Sunan Kudus, founder of Kudus. It plays a role in pilgrim activities and supports the function of

**Madurekso Square** as a trading and gathering place. Conflicts over ownership of and responsibility for the Mosque make it a critical site.

**Menara Complex** (including Al-Aqsa Mosque, Menara Kudus Minaret, cemetery and associated buildings and structures). This complex was the original focal point for the Islamic town of Kudus, and has strongest associations with Sunan Kudus and the founding of the town. Its architectural elements and styles demonstrate the amalgamation of Islamic, Hindu and Javanese traditions. Alterations have been made over time, but it has been well-maintained.

**Menara Street and Kyai Telingsing Street.** The crossing of these streets with Sunan Kudus marks the centre of early Islamic settlement of Kudus. These narrow lanes of walled timber houses and small shops convey the unique urban character of Kudus. Pressure to widen these streets, and continuing removal and alteration of houses and facades make the protection of these streets critical.

**Sunan Kudus Street.** This street marks the core of pre-Islamic settlement of Kudus, and its crossings with Menara and Kyai Telingsing Streets marks the centre of early Islamic settlement. Sunan Kudus Street provides an historic connection between West and East Kudus. Removal of Chinese shophouse and other building facades has already altered its scale and character.

**Madurekso Street.** This street forms an integral part of Madurekso Square.

**Traditional Timber Houses.** These houses exhibit culturally significant materials, craft skills and design. They describe a religious and social way of life particular to the history of Kudus. Their continuing removal and sale as cultural commodities, and their lack of maintenance make protection critical.

**Kauman quarter.** Kauman is the original Islamic residential settlement of Kudus. It established the urban characteristics adopted in other quarters. Its compact urban form is rare among Javanese towns. It contains many timber houses of significance.

**Langgardalem quarter.** This quarter is associated with the original residence of Sunan Kudus. Its character is less compact than Kauman quarter, but it contains a larger number of timber houses.

**Kerjasan quarter.** Geographically, Kerjasan may be considered as an extension of Kauman quarter. It is administratively separate, however. It contains less timber

houses than Langgardalem, and may be considered less historically significant than Kauman and Langgardalem.

**Janggalan and Demangan quarters.** These quarters mark the urban expansion of the Islamic town centre during the Mataram Court and Dutch Colonial periods. They represent later Javanese and European building styles, and contain lower numbers of timber houses.

**Sunggingan quarter.** This quarter was settled prior to Kauman quarter during the pre-Islamic period. The existence of remaining houses from the pre-Islamic period has not been established. However, the tomb and burial ground of Kyai Telingsing are found in the quarter.

**Demakan quarter.** This quarter was settled by Prince Puger, Regent of Demak, sent to Kudus during the Mataram Court period. A burial site, which contains a mosque and Prince Puger's and his family's tombs, are found in the quarter.

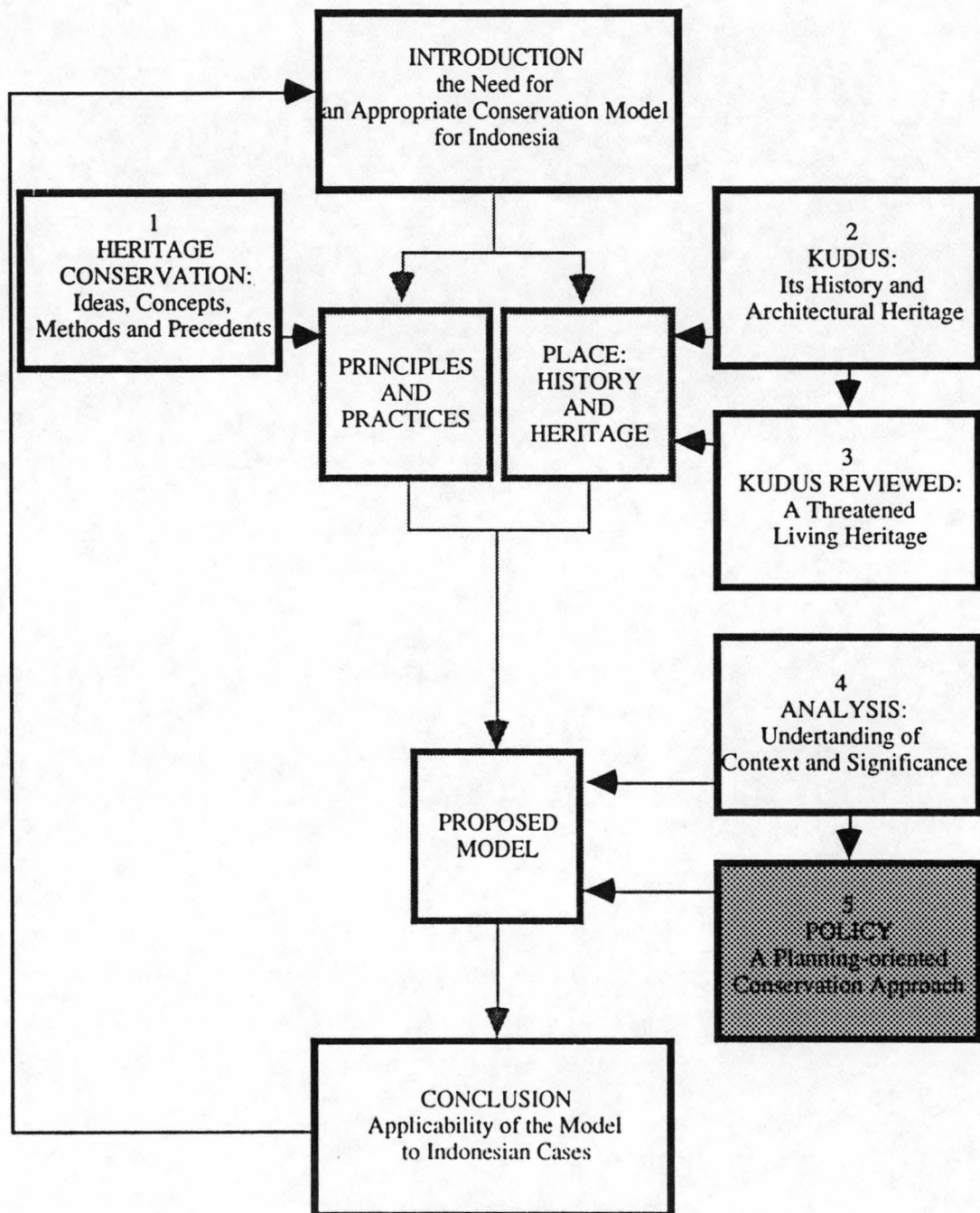
### **Priorities for Site Protection**

Based on the above assessment, the most critical areas for conservation are Kauman quarter and Langgardalem quarter. Visual documentation of these areas is included in **Appendix I** as a major part of this study.

Critical sites for conservation, based on the above analysis, are Madurekso Square, Menara Street, Madurekso Street, and Madurekso Mosque. Selected houses are also identified as critical. Based on the typological analysis in Chapter 2, Section 2.2, particular houses were chosen for visual documentation. This documentation is presented in **Appendix I**.



**Safeguarding a Living Heritage:**  
**A Model for the Architectural Conservation of an Historic Islamic District of Kudus,**  
**Indonesia**



# 5

## POLICY :

### **Planning-Oriented Conservation Approach**

The model presented in this study establishes a clear theoretical and analytical framework for conservation. It also describes policy and programmes for the safeguarding of Indonesia's urban heritage. The formulation of policy and the development of programmes are political activities which must occur within a political process. Within this model, the formulation of planning objectives and the identification of short- and long-term programmes are discussed. Particular directions are proposed. These proposals are meant to inform the Indonesian political process, and to provide guidance in the development of policy.

Urban conservation policy will establish directions for future conservation. The establishment of an appropriate conservation policy is a prerequisite for decision-making regarding the future of the historic Islamic district of Kudus. The development of such a policy would provide insights into how the conservation process may best be achieved both in the short and long term.

Among accepted policy frameworks, the Burra Charter has been widely applied and is the most applicable to Indonesia.<sup>155</sup> According to the Charter, the formulation of policy should incorporate the following essential aspects:

- (1) the identification of appropriate ways of caring for the fabric and the setting of the place to ensure its physical stability and security;
- (2) the identification of compatible uses for the place;
- (3) the identification of appropriate ways for the general public to interpret and understand the significance of the place;

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<sup>155</sup> Joan Domicelj, in her foreword to the Illustrated Burra Charter, states that the Charter has been extensively adopted and used in Australia, countries of Latin and North America, and Europe and Asia.

- (4) the identification of management systems for policy implementation;
- (5) the provision of means and mechanisms for the control of physical intervention in the fabric of the place;
- (6) the identification of constraints on the investigation of the place; and
- (7) the provision of means and mechanisms for adoption and review of the policy.<sup>156</sup>

An appropriate policy requires shared principles, clear, achievable objectives, and programmes to achieve the objectives. Such a policy will establish directions for research, planning and design guidelines, administrative and participatory mechanisms, and legal and financial tools.

## 5.1 Development of Conservation Policy

### 5.1.1 Principles

The following principles have been derived from analysis of the Kudus case. They demonstrate the application of the proposed conservation model to a particular case.

**Heritage conservation, planning and design form an integral process.** Attempts to protect the architectural heritage of the historic Islamic district must anticipate the pressure of the dynamic urban development process, so that conservation practice must employ planning and design principles and requirements. Planning and design schemes, in turn, must incorporate heritage conservation principles, issues and practice. The conservation process must be planning- and design-oriented, or alternatively, the overall planning and design process must be conservation-oriented.

**The approach must be multi-disciplinary and cross-sectoral.** A planning- and design-oriented conservation process requires involvement of a multi-disciplinary and cross-sectoral team, consisting of government staff from a variety of offices, professionals from diverse disciplines, private businesses, non-profit organizations, and local inhabitants.

**Conservation must aim to maintain and enhance *genius loci*.** The development of the conservation policy must address the maintenance and enhancement of the *genius loci* of the district, which involves two complementary elements which could be termed fabric and meaning, structure and symbol, or form and content.

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<sup>156</sup> Australia ICOMOS, 1988, op.cit., n.p.

**Entire spaces and structures of the district must be considered as a whole architectural heritage.** The development of the conservation policy must be based on the conservation of the district as a whole rather than individual mosques, cemeteries, and timber houses. The whole district contains inseparable structures, consisting of a main square, a main cross-roads, a complex of great mosque and cemetery, a number of neighbourhood mosques, compact residential quarters, shops along the roads, and a river. The destruction of an individual structure, such as the removal of timber houses one at a time, would result in damage to the whole district.

**The district must be considered as a living environment.** The development of the conservation policy must be based on an understanding of the historic Islamic district of Kudus as a living heritage, so that attempts to safeguard the architectural heritage do not arrest the dynamic development process. The conservation process must enhance socio-economic viability and generate public amenities, using existing potential, such as the established residential and pilgrimage activities, religious ceremonies and other cultural events, as a vehicle. Construction of new structures, and rehabilitation, renovation and adaptation of existing structures are of importance in order to accommodate developing needs, provided that such development accords with, or enhances, the significance of the place.

**Both the place and the people are important.** The development of the conservation policy must be based on a sufficient understanding of the significance of both the district and the community as a whole living heritage. This significance involves physical, social, and psychological aspects. The inhabitants are living subjects in the conservation process, so that their needs, aspirations, and sense of local identity and pride, must be seen as essential concerns. The inhabitants and local community must be involved in the process of protecting their dwellings.

**Conservation work must employ traditional techniques and materials.** The physical protection of heritage structures must make use of existing traditional techniques and materials, such as the traditional art of wood-carving and techniques of timber cleaning.

**Recognition of serious problems in the district.** A conservation process is intended to protect the architectural heritage, while improving the quality of the environment and the life of the inhabitants, rather than trying to instantly overcome seemingly insurmountable problems. An awareness of such problems, however, is essential. This includes an inheritance system which encourages the sale of timber houses, socio-economic pressure that results in inability to properly maintain the

houses and residential quarters, and changing ways of life which result in the need for larger dwelling areas with access for cars and more complete public facilities, utilities and services.

**An awareness of the dynamic nature of the conservation policy.** Changing needs of the inhabitants and changing local circumstances require a dynamic conservation policy. The content of the policy, therefore, should anticipate future development and always be kept up to date. The policy should provide for regular reviews and appropriate modifications based on the reviews.

### **5.1.2 Objectives of the Policy**

Based upon shared principles, conservation planning objectives must address critical management and resource issues. Conservation policy for Kudus can thus be devised by developing strategies to accomplish the following objectives :

#### **Objective 1: Protect culturally-significant areas and sites of the district**

**The designation of the entire historic Islamic district as a protected area.** The policy should address the protection of the fabric, setting, and meaning of the historic Islamic district of Kudus as a whole. This should incorporate townscapes and streetscapes of the old town and the entire structure of the traditional residential quarters. The area should comprise both the central quarters (Kauman, Langgardalem, Kerjasan, Demangan and Janggalan) and the peripheral ones (Sunggingan, Purwosari, Damaran, Kajeksan and Demakan). The current study models the necessary analysis and documentation.

**The designation of significant spaces and structures as protected sites.** The policy should address the protection of both culturally-significant urban spaces, i.e. Madurekso Square and Menara, Kyai Telingsing and Sunan Kudus Streets, and individual buildings, i.e. traditional timber houses and al-Aqsa, Madurekso and Langgardalem Mosques. A register of significant areas and sites must be established, while both general and critical inventories must be prepared. These can be based on the model developed in this study.

**The provision of appropriate activities for the protected sites.** In order to enhance the viability of the district, compatible activities should be identified. Current activities should be maintained and appropriate new ones introduced, while those which have fallen into decline should be revitalised. The current mixture of residen-

tial activities and small-scale home-industries in the residential quarters should be retained. Existing religious activities centered on Menara Complex should also be maintained, including activities in the tomb of Kyai Telingsing, the mosque and tomb of Pangeran Puger, and Madurekso Mosque. Small-scale commercial uses -- shops, shop-houses, woodcarving workshops, and food stalls -- located along Sunan Kudus Street, Menara Street, Kyai Telingsing Street, Madurekso Street, and in Madurekso Square should be retained, although both physical and visual controls are needed. Existing general and religious celebrations, such as ceremonies, bazaars and festivals need to be maintained. New activities introduced should emphasise public and visitor amenities. This would require the provision of gathering spaces, an information centre, a handicraft centre, pilgrimage accommodation, as well as small-scale cafes and art shops. These facilities could be located on or surrounding Madurekso Square, on empty sites along Menara and Kyai Telingsing streets, or incorporated in the residential quarters. The declining activities requiring revitalisation include traditional market previously located on Madurekso Square, and pedestrian activities along Menara Street, Madurekso Street and both sides of Sunan Kudus Street.

**The identification of techniques of public interpretation.** In order to foster public understanding, means for public interpretation should be provided. This can be undertaken through architectural design of the sites, the generating of public interpretative activities, and the introduction of interpretative materials. Architectural design should aim to exhibit historical development of the sites. The roof construction of the Kudus timber house, for instance, can be shown through exhibition of its original carved timber structure and clay-tile roof. Adequate technical knowledge and skills in heritage research is of prime importance; the involvement of qualified professionals would be essential in the undertaking of such design. Interpretative activities should include the provision of a visitor centre, historic-trail routes, small art-galleries, a museum, a library, an open arena for performing-art, as well as open spaces for religious ceremonies and traditional celebrations. As the introduction of certain activities could disturb the cultural significance of the sites, sufficient research needs to be carried out prior to any decision making. The introduction of interpretative materials on sites can be the simplest means of fostering public understanding. It can also be the least dangerous in terms of improper intervention with the fabric. This includes the introduction of signs, brochures and leaflets containing information about the sites which incorporates titles or names, brief historical descriptions and statements of cultural significance. The information should also contain maps and other graphic illustrations, showing the locations of the sites, their distance, directions, as well as routes within the district. Certain signs are often better avoided, in

cases where they could disturb the visual quality of the sites. Guidelines for the planning and design of appropriate interpretative materials should be established.

**Objective 2: Establish a sound administrative system for conservation**

**The establishment of an effective management structure.** In order to ensure effectiveness, the management structure should be compatible with the existing administrative framework of the government. The management structure should incorporate multi-level coordination, involving local government of Kudus Regency, regional government of Central Java Province, and, whenever necessary, the national government. It should also be cross-sectoral, involving mutual cooperation among various government offices and boards, including the Office of Education and Culture, the Office of Tourism, the Office of Public Works, the Regency Planning Board, the Town Planning Section, and the Law, Economic, and Social Welfare Sections. The structure, moreover, should be multi-disciplinary, involving personnel in the fields of history, planning, design, tourism, business, law, and public administration. It should be "grass-roots"-oriented, involving the inhabitants, local community groups and officials of the quarters. It should also be market-oriented, involving representatives of local businesses. Coordination, supervisory and advisory mechanisms should be established, while duties, responsibilities and rights should be clearly defined.

**The establishment of competent management personnel.** Selection of competent personnel should be based on qualification regardless of specific academic background. The qualification includes knowledge of architectural conservation issues and practice, and understanding of both the cultural significance of the district and the life of its the inhabitants. The personnel should include government officials responsible for managerial work, multi-disciplinary professionals responsible for providing knowledge and skills of architectural conservation, and representatives of businesses responsible for fund-raising. Representatives of the local community should also be included, so that conservation programmes would obtain support from and be most beneficial to the community. The responsibility of this group would be two-way : to convey the aspiration of the inhabitants and to disseminate information to the inhabitants.

**The establishment of effective mechanisms for decision-making.** In order to achieve successful conservation programmes, an effective mechanism for decision-making needs to be established. Particular consideration should be given to the currently dominant role of the government as a single decision-maker. A mechanism

of well-coordinated management personnel would ensure greater effectiveness than that of a single power-holder. Involved personnel, either the government officials, the professionals, the businesses, or the community representatives, though having different roles and tasks, should have the same rights and responsibilities in the decision-making process. Effectiveness, moreover, would increase if wider public participation is fostered. The draft of decision alternatives should be communicated to the local community through publication in local mass-media, questionnaires, interviews, public meetings, and community workshops. Local community's opinions and aspirations should be considered before making final decisions, as the local community represents the subjects of the conservation process. Regular reviews, moreover, need to be carried out at the implementation level, so that appropriate modifications can be made to ensure the effectiveness of the programmes.

### **Objective 3: Establish and enforce an effective legal system for conservation**

**The development of appropriate legislation.** In order to provide security for protected sites, appropriate legislation should be introduced. Gaps in architectural heritage conservation legislation at the national level have been a prominent constraint, so that legislation at the local level of Kudus Regency needs to be established. Local legislation should be compatible with that at the national level, but adapted to the particular needs of the historic district of Kudus. Reference should be made to the recently passed Law on National Cultural Heritage Protection. Local heritage legislation should also be compatible with existing relevant legislation applicable to urban planning, housing, and building development. The heritage legislation, in turn, would be an essential supplement to the existing legislation, and could provide input on heritage conservation issues for its future amendment. Regular reviews should be stipulated, as well as corrections and alterations consistent with future development of the district. The Regent of Kudus and the Kudus Legislative Assembly should take responsibility for the preparation of legislation, even though both administrative and technical inputs from relevant bodies and experts would be needed. Input from a number of organisations would increase the ultimate effectiveness of the legislation. Aspirations and opinions of the local community should also be considered. Once approved, the legislation should be immediately disseminated to both relevant authorities and the general public.

**The introduction of appropriate legislation.** Legislation should address the designation of the historic Islamic district as a whole protected area. An historic district zoning ordinance would be essential. This ordinance should be concerned with the maintenance of the existing urban fabric of the district to retain its cultural signifi-



cance, the control of interventions to the original urban fabric which could change the cultural significance, and the control of the introduction of contemporary elements to the original urban fabric which could disturb the heritage values of the area as a whole. The nature and degree of required maintenance, and permitted intervention and introduction of new elements should be clearly explained. Directions on the nature and degree of permitted actions, in addition, should also be provided to ensure both the reversibility of unavoidable intervention and the compatibility of newly introduced elements. The historic district ordinance, moreover, should include regulation of demolition, sale, removal, and alteration of culturally significant structures of the district, particularly the fragile timber houses. The ordinance should also incorporate detailed regulation of the visual performance of buildings, townscapes, streetscapes, and street facades within the district. The regulation of visual performance should incorporate architectural alignment, size, height, setback, scale and form, lighting, colours, materials, textures, and signage. Regulation for the performance of public open spaces, including streets and squares, should also be addressed, incorporating the paving of pedestrian spaces and the provision of benches, lighting poles, sign poles, vegetation, planters, litter bins, and works of art.

**The establishment of mechanisms for legal enforcement.** In order to ensure effective implementation of heritage legislation, an appropriate mechanism for legal enforcement should consist of three elements. First, a sufficient legal power should be enacted to enforce compliance by all public and private agencies and personnel involved in the conservation process. Legal conditions and sanctions should be appropriately addressed, and violations should be adjudicated in the civil court. Secondly, a clear procedure should be established to provide simple yet effective directions to follow regulations, as well as bring charges and prosecutions. The procedure should include permission prior to the undertaking of interventions or the introduction of contemporary elements on protected sites. Thirdly, locality-based legal authorities should be appointed to be responsible for the implementation of heritage legislation. These local authorities would play a pivotal role in fostering cooperation and understanding between residents and planning authorities.

#### **Objective 4: Provide appropriate tools for conservation practices**

**The establishment of standards of conservation practice.** The absence of standards of conservation practice at the national level requires its establishment at the local level of Kudus. The standards should address qualities and quantities of conservation work, comprising heritage research, urban and architectural design, and physical processes of conservation. Standards for heritage research should specify

competency of the researchers, as well as the degree and nature of research required, and the means for its assessment. Design standards should provide guidelines and procedures for intervention on protected areas, sites, and structures, particularly specification of appropriate alterations and additions involving the introduction of new elements. Standards of physical conservation work should provide guidelines and procedures for analysis of heritage materials, and specification of appropriate techniques and materials for the particular project. The physical standards should also specify the nature and degree of acceptable intervention, and identify its possible impacts. It should also establish recommendations for treatment of the place after intervention.

**The establishment of a code of ethics in conservation.** A code of ethics needs to be established to provide moral guidelines for those involved in conservation practice, so that safety and security of protected sites is ensured. The absence of such a code at the national level requires its preparation at the local level of Kudus. The scope should address moral obligations of all personnel involved in the conservation process. This should include attitudes and responsibilities toward conservation decisions to be made, the rationale behind these decisions, as well as procedures to carry them out appropriately. As this code should be appropriate to the Kudus case and of international standard, the code should make reference to both realms.

#### **Objective 5: Foster public participation in conservation process**

**Participation of private businesses.** Involvement of private businesses should be encouraged. Private investors, fund-raisers, and activists have played an influential role in urban development and conservation in Kudus and will continue to do so. This involvement could be promoted through an incentive-disincentive system. Such a mechanism was applied in the recently launched Kudus town beautification programme. If applied to the architectural conservation process, such programmes would increase economic viability of the protected sites and the district, as well as being of commercial benefit to the private sector. This mechanism promotes a dynamic conservation process, rather than a static one. The rehabilitation of Menara and Madurekso streets, revitalisation of Madurekso Square, and adaptive re-use of timber houses and other buildings for commercial activities, therefore, would attract greater interest from the private sector than, for example, the restoration of Madurekso Mosque. Capital investments should be encouraged. In this case, programmes should provide opportunities for the private sector to share in the management of sites. This could be undertaken if regulations, supervisory mechanisms, standards of

practice, and codes of ethics were established, so that the rights and duties of the private sector, the government, and the property owners could be clearly set out.

**Involvement of professional practitioners.** Involvement of practitioners needs to be fostered to provide professional and technical assistance in the conservation process. Practitioners specializing in cultural heritage conservation exist neither locally nor regionally. However, a number of qualified practitioners in architecture and urban planning can be found in Kudus, in adjacent small towns, and in Semarang, the capital city of Central Java. Local practitioners, however, should be given priority. Two recent conservation-related projects have involved professional practitioners. An architectural firm from Semarang undertook the preparation of a 1986 study of traditional Kudus architecture under assignment from the Office of Public Works Office of Kudus Regency. The construction of the Kudus Pavillion in the Central Java Miniature Park in 1992 in Semarang was carried out by a Kudus woodcarving artist and his team under assignment from the Office of Tourism of Kudus Regency. The lack of interest in conservation projects may be due to the lack of knowledge and skills in this particular area. On the one hand, conservation process is regarded as more difficult than new development projects. On the other, the government often prefers to assign conservation projects to government staff. A two-way approach should therefore be fostered. The government should provide greater opportunities for the practitioners to participate in conservation projects, while the practitioners should take opportunities to develop experience in this field.

**Involvement of academic institutions.** Participation of academic institutions should be enhanced, as these institutions could provide valuable research in architectural heritage conservation. Studies and surveys undertaken by academic staff and students could be further explored and employed in real projects needed by the community. The staff and students could provide theoretical knowledge and, in turn, obtain experience in on-site projects involving real communities. By providing study sites, the community could obtain information and other resources for conserving their dwellings. Academic institutions in Kudus and its vicinity, such as Sunan Muria University in Kudus and Diponegoro University and Walisanga Islamic Higher Education Institute in Semarang, could be potential sources of knowledge in architectural conservation research relevant to the historic Islamic district of Kudus. Links with institutions from other cities would also be valuable. These institutions have carried out studies on Kudus architecture, and are likely to have an interest in joint conservation-projects.

**Local community participation.** Participation of the local community of Kudus, particularly of the historic Islamic district, should be generated; support by the inhabitants and the adjacent communities would ensure an effective conservation process. A strong sense of pride and sense of belonging could help to increase community awareness of the importance of safeguarding the living environment. Participation in heritage conservation programmes could be expressed individually as volunteers and collectively through local heritage conservation groups. No such volunteers and groups exist in Kudus, so that their formation should be fostered. Existing local community clubs, such as *Merah-Putih*, an artists club which is located on Madurekso Square, however, could form the basis of a heritage group. Groups of students should be encouraged to join, as well as groups of people from both the West and East Kudus interested in heritage conservation. Regular meetings should be held to discuss issues and constraints, problems and possible solutions, regarding the conservation of the historic district, as well as to express aspirations and opinions needed in decision-making concerning the future of the district. General meetings of local heritage volunteers and groups would also be needed, where visiting experts could be invited to provide assistance.

**Involvement of non-profit organisations.** Participation of non-profit organisations should be encouraged, as it would provide another source of knowledge and skills. The lack of a Kudus-based non-profit conservation group is critical. The Semarang-based and recently established *Yayasan Jatidiri* may be the only non-profit organisation specialising in cultural heritage conservation located in the vicinity of Kudus. Up to the present, Yayasan Jatidiri, unfortunately, appears to be concerned only with architectural conservation of the heritage places of Semarang. Other organisations are located in other cities, such as Yogyakarta Heritage Trust and Yogyakarta Heritage Society. These organisations should extend their concern to include Kudus, or, otherwise, a Kudus-based non-profit organization specialising in the conservation of the architectural heritage of the historic district should be established. The lack of local experts in the area of architectural and urban studies, archeology, history, and the absence of experts on heritage conservation, however, would hinder its establishment.

## 5.2 Identification of Conservation Programmes

This study identifies primary, secondary and supporting programmes which could foster implementation of the policy objectives.

### **5.2.1 Primary Programmes**

**Preparation and adoption of a conservation master plan.** A conservation plan is urgently needed. This plan must be prepared in conjunction with urban planning authorities and must be fully integrated into the urban development process. The preparation of the master plan would require greater resources than are available for the present study. However, its preparation could be based on the model developed in this study, following four phases : (1) the examination of historic context and identification of historic themes; (2) the development of a general inventory of places of architectural heritage value which represents these themes; (3) the assessment of these places according to criteria of cultural significance and contextual factors; and (4) the preparation of an inventory of the most critical sites as a priority for immediate actions. Since the last phase would include a large number of timber houses, and due to shortage of resources, it needs to be accompanied by the classification of timber houses in terms of architectural typology and the selection of the most critical ones in terms of physical qualities and urgency of intervention.

**The establishment of a register of significant sites.** A comprehensive list of sites of cultural heritage value should be established based on the development of a general inventory discussed in phase (2) of the conservation plan. This list should build on previous lists and inventories. Acting as a register of the protected sites, the list should record all places within the historic Islamic district which represent established historic themes. The area covered, therefore, should comprise both the five central and seven peripheral quarters of the old town. The list should comprise significant sites which form the historic urban structure of the district, including timber houses, mosques and cemeteries, compounds of houses of various types and qualities, as well as squares, streets, paths, facades and streetscapes. Other buildings of various uses and architectural styles, shops and Chinese temples should also be incorporated. The register would be an invaluable basis for carrying out further studies and actions to retain the cultural significance of the sites. It would provide essential information to be considered prior to any decisions regarding the future of the sites.

**The preparation of a critical inventory.** The preparation of both general and critical inventories is needed as a basis for further planning and intervention. An inventory of the most critical sites should be established as a priority, in case the preparation of an inventory of all significant sites is impossible due to shortage of resources. The preparation of a critical inventory should be based on phase (4) of the conservation plan, as well as on information covered in the register and the general inventory. The critical inventory, therefore, should cover the most critical sites for immediate

conservation actions. The area should include the five central quarters or, at least, Kauman quarter, Langgardalem quater, and Madurekso Square. The sites should include a number of selected timber houses, Madurekso Mosque and Menara Street. This inventory should contain more detailed information than the general inventory (see below), reviewing the history of the sites, incorporating historical records and spatial formations of both urban and architectural development. The graphic information should be more detailed, including measured drawings of site plans, building plans, elevations, and sections of buildings, architectural sketches of construction systems and building materials, photographs of the exterior and interior of the buildings, measured drawings and photographs of significant architectural and structural elements and details, as well as maps and lists of vegetation.

**The preparation of a general inventory.** Following the setting up of the register, a general inventory of culturally-significant sites should be prepared as a basis for further programmes. The general inventory should cover all significant sites within the historic district as covered in the register. Curtilages of buildings, including open and closed yards, boundaries, gates, as well as semi-public and public access, such as shared yards, shared paths, paths and streets, should also be clearly noted. The information should include the location of the sites in the district, architectural styles, building numbers, existing names, previous names if any, existing and previous uses, owners, dates of construction and later alterations, and the architects if known. Architectural qualities, such as building forms, scales, materials and construction techniques, also need to be covered. It is important to note, however, that dates of construction and architects are often unknown due to the vernacular character of the architecture in the historic district. There is also often no documentation of European style buildings, except perhaps, for important government buildings in the new town. Graphic information, including maps of locations and sites, photographs of building facades, as well as drawings of urban plans, site plans, building plans, and elevations and sections of buildings, should be incorporated.

**The documentation of significant areas and sites.** The preparation of aerial photographs and maps of the historic Islamic district of Kudus would be essential as a basic source of reference for both conservation research and projects. These photographs and maps should clearly show the landscape, settlement pattern and building forms of the district, which would be urgently needed for the preparation of the register and general inventory. The aerial photographs, which could not be obtained for this study, would provide a basis for preparing maps, which in turn, would be a basic reference for the conservation master planning. The aerial photographs and maps should comprise the whole area of the old town of Kudus as mentioned in the

register. More detailed aerial photographs and maps of the old town centre, moreover, should be provided, as they would be essential for the preparation of the critical inventory.

**The establishment of conservation projects.** A programme for conservation projects should be established, which would give priority to sites identified as critical in the inventory. This programme, depending on available resources, could be further extended to include other sites of secondary importance covered in the inventory. Secondary sites could be identified based on the assessment and ranking of the cultural significance of the sites developed in phase (3) of the conservation plan. In this case, shortage of financial and personnel resources would be the prominent constraint. A number of advantages, however, would result from these projects. Public awareness would increase. Professional practitioners would become involved. Coordination among authorities, agencies and academic institutions would develop. The private sector might become involved as sponsors. Perhaps most importantly, knowledge and skills of conservation staff, technicians and craftspersons would improve. Opportunities to attract international, national and regional recognition and funding might emerge.

### **5.2.2 Secondary Programmes**

**The establishment of an office for architectural conservation.** In order to foster an effective coordination of the conservation process of the historic district of Kudus, an office for architectural conservation is proposed. This office would act as a coordinating authority responsible for the overall conservation process, including the preparation and implementation of the conservation plan, legislation and projects. This office could be at the national level, the regional level under the government of Central Java Province or, which most effective for Kudus, at the local level under the government of Kudus Regency. Ideally, its officials should be appointed on a full-time and permanent basis, and should constitute a multi-disciplinary team of relevant backgrounds, including architecture, urban planning, history, archaeology, law, economic, sociology, and tourism development. Mutual cooperation with relevant institutions and non-profit organizations should be fostered. This could involve higher education institutions like the School of Architecture and Research Institute of Diponegoro University in Semarang, which have carried out a number of architectural conservation studies, the Walisanga Islamic Higher Education Institute in Semarang, and the Sunan Muria University in Kudus. Communication and cooperation with heritage organisations such as Yayasan Jatidiri in Semarang, heritage volunteers,

local community groups, and local craftspersons should also be fostered. This office could seek and coordinate international funding for specific projects.

**The establishment of a sound consultative committee.** A consultative committee needs to be established to offer advice related to conservation activities in Kudus. Its responsibilities should include the provision of advice to the government of Kudus Regency regarding the undertaking of the conservation process, the provision of advice to the Regent of Kudus, the Kudus Legislative Assembly, and the proposed heritage conservation office regarding the preparation of heritage conservation legislation, and the provision of advice to the inhabitants of the district prior to alteration of their protected dwellings. Such a committee has existed in Kudus, called the Advisory Team, the responsibility of which is to provide advice for the Regent regarding the sale and alteration of timber houses. Hence, this team would be the basis for the formation of the proposed consultative committee which has wider responsibilities covering overall conservation activities. In order to develop the existing Advisory Team into a sound committee, additional training in the wider area of conservation issues and practice is suggested. As in the existing team, the committee members could include the Secretary of the Kudus Regency Government, the Head of the Tourism Office of Kudus Regency, the Head of the Programme Development Section of the Kudus Regency Government, the Head of the Department of Education and Culture of the Kudus Regency, the Head of the Wealth Subsection of Kudus Regency Government, the Head of the Economic Subsection of Kudus Regency Government, the Head of the Law Subsection of Kudus Regency Government, the Head of the Department of Public Works of Kudus Regency, the Head of the Development Planning Agency of Kudus Regency, and the Heads of Kudus Town Sub-regencies. The committee members would be current officials of the Kudus Regency government, and should be appointed on a part-time and non-permanent basis. Coordination with the proposed heritage conservation office should be fostered.

**The establishment of a documentation centre.** A centre for architectural conservation documentation needs to be established to provide a central body of data concerning the historic Islamic district of Kudus. The establishment of such a centre as an autonomous body would require great financial and personnel resources, so that its affiliation with other institutions would be more appropriate. The documentation centre could be a part of and managed by the proposed Kudus heritage conservation office. In this case, coordination with other institutions and organisations involved in heritage documentation programmes, such as Diponegoro University and Yayasan Jatidiri, should be fostered. Considering the possible shortage of local government funding, the centre could also be a part of and managed by either Diponegoro



University or Yayasan Jatidiri. In this case, strong links with the proposed Kudus heritage conservation office should be continuously developed. The centre could also be affiliated with Kudus Regional Library currently located on Madurekso Square. In this case, coordination with the heritage office, the University and the Yayasan should be generated. Although the data covered by the centre would focus on the historic Islamic district of Kudus, the area could then be geographically, historically, and architecturally extended to include culturally-significant places in the vicinity of Kudus, depending on availability of resources. This could include other significant places in Kudus town and, subsequently, thematically related places of other towns, such as those of Demak and Jepara in Central Java, Banten and Cirebon in West Java, and Gresik and Tuban in East Java; these towns were centres of Islamic proselytization in Java or the former seats of the Islamic saints. The data should include aerial photographs, maps, historical records, registers and inventories of culturally-significant places, architectural conservation studies and surveys, and reports of conservation projects. Books on the history and theory of architectural conservation would become important materials, as would articles concerning the historic Islamic district of Kudus and other relevant places found in various media. Audio-visual materials like slides, videos, and films would also be useful. These materials would be of the utmost importance as a basis for further programmes, and as a record to preserve invaluable information in case preservation of the sites failed. The information should be made publicly available as a library to increase popular awareness of, interest in and concern for architectural conservation issues and practice. The centre, moreover, should publish brochures and leaflets to provide interpretative materials for the general public.

### **5.2.3 Supporting Programmes**

**Publication of the heritage resources.** A programme of publication of the heritage significance of the historic district of Kudus needs to be generated. Both professional and popular categories of publication are needed. Professional publications could be intended primarily for those directly involved in the conservation process, including researchers, professional practitioners and government officials. These publications could also be used for educational purposes in schools and universities; accuracy, completeness, and honesty would be of importance. Reports, books, and graphic documentation of architectural studies, historical studies and heritage conservation investigation are all needed. Popular publications could be designed for public education and communication, as well as for tourist information. This could be presented as brochures, booklets, leaflets and posters concerning significant sites. Publication of guided walks would increase appreciation of significant areas.

The presentation of popular publications such as articles in newspapers and popular magazines could achieve wider public recognition.

**The launching of a national and international campaign.** A national and international campaign should be launched in conjunction with the heritage publication programme. The campaign would generate wide recognition of the cultural significance of the historic district of Kudus, so that opportunities for obtaining funding from both national and international agencies could be fostered. The impact of international support on local attitudes to the historic district would be invaluable.

**The introduction of heritage conservation activities for schools.** The people of Kudus rarely learn about the architectural heritage value of their dwellings. Heritage education for schools should be developed. Heritage conservation activities need to be introduced into school curricula, from primary to high school level. As the nationally-established school curriculum apparently does not incorporate heritage conservation issues, the programme could be introduced into the curricula of local schools. Appreciation of the architectural heritage could be introduced through existing subjects such as history, geography and art, or extra-curricularly as a special subject or innovative activity. Activities could include excursions to actual heritage conservation projects and heritage trails in the historic Islamic district or throughout Kudus . It could also include on-site participation in actual conservation projects. Particular tasks would depend on school level. Such activities would provide a chance for students to become familiar with broad heritage conservation issues and practice, as well as with specific fields like architecture, history and archaeology. A series of heritage education kits and sheets for both teachers and students, however, would be needed. Assistance from professional bodies would also be valuable.

# CONCLUSION

Indonesia's urban architecture faces a critical juncture. Its rich history, unique architecture and traditional communal pattern offer a challenge to those who can act to conserve them. Indonesia's urban communities require a planning tool specific to their circumstances if they are to be conserved.

This thesis serves as a preliminary planning tool carried out within considerable limitations. Its effectiveness can only be determined through testing. Kudus provides an ideal location for trialing conservation policy. It is of great cultural significance, it requires urgent attention, and it has hitherto been omitted from international conservation activities.

Further studies involving a multi-disciplinary team of relevant experts are essential in any future action. Future research should consider physical, social, economic and political aspects of the protection of the cultural heritage of Kudus from architectural, historical and urban planning viewpoints. Investigation should focus primarily on the most critical culturally significant areas and structures identified in this study; it could subsequently be broadened to cover the less critical sites, depending on available resources.

The model developed in this study would provide an approach for the preparation of a master plan for Kudus with a particular concern to safeguard the heritage significance of its historic Islamic district. This approach integrates both heritage protection and urban development planning through an understanding of the importance of both the people and the place as a living heritage.

The model, moreover, is expected to be applicable to other places in Indonesia which face similar problems and are struggling to preserve their architectural heritage. The four-step procedure which consists of the examination of historic context, the assessment of cultural significance, the development of conservation policy, and the provi-

sion of directions for policy implementation, provides a framework for conservation planning in these places.

Even though the model could be applied to any historic area of Indonesia, it is most applicable to traditional urban districts possessing potential and problems similar to Kudus and its historic Islamic district. Such districts contain intact traditional urban and architectural fabric and settings, but contain easily dismantled and reassembled structures having a high possibility of removal from their original sites. Their low economic viability makes them unattractive to investors, and reduces government incentive to intervene.

The need to introduce conservation-oriented planning through the introduction of analysis and master planning has been discussed previously. The following new directions may be pursued as a result of the principles and objectives established by this study.

### **Public education**

The fostering of understanding and a sense of responsibility in the local community through public education is appropriate as an immediate action to increase support for conservation.

Even though such an attempt is educational rather than architectural, it would be appropriate if undertaken from an architectural viewpoint. Using architecture as a medium for explaining cultural significance would be more comprehensible for the general public than social, economic and political factors. The inhabitants must be convinced that the retention and maintenance of traditional architecture, within which they dwell and express their achievements, would result in increased prestige and pride. They must also be convinced that such personal and communal sentiment should prevail over the negative economic and commercial incentives. Both the inhabitants and the general public, moreover, must be convinced that removal of houses would damage the entire architectural character of the district.<sup>172</sup>

Regular community meetings and workshops discussing the importance and advantages of heritage conservation would be essential. Such meetings should involve the inhabitants of the district, the local community of Kudus, local urban managers, and

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<sup>172</sup> Such action is like "pulling teeth one at a time out of a beautiful face".

visiting experts. The role of a "community-friendly" team of resource persons consisting of architects, planners and urban managers would be critical.

## **Publications**

Publications are an important method for public education and the fostering of wider recognition which could generate opportunities for gaining national and international funding. Existing publication on Kudus is limited to books containing descriptions, focussed on its ancient mosques and its central figure Sunan Kudus, or its clove cigarette industry. Articles in newspapers, magazines and travel guide books are focussed on the nature, visual character and some aspects of the meaning of the timber houses and the town. Future publications should include both descriptions and arguments which emphasise the need for cultural heritage conservation.

The form and content of future publications should vary depending on their intention and audience. Posters, leaflets and booklets containing pictorial description and explanation would be more effective for the general public, while books containing scientific investigation and feasibility studies would be more attractive for experts in heritage conservation and more persuasive for possible investors or fund-raisers.

## **"Self-help" conservation actions**

Lack of government financial resources demands a self-help approach to heritage conservation actions. Such an approach requires the active involvement of inhabitants of the district and local conservation groups, as well as the technical assistance of planners and architects. The administrative assistance of local government and, possibly, the financial support of local businesses is also required. Involvement of the local community should extend to direct initiatives for carrying out both individual and communal projects, in addition to participation in conservation programmes established by the city managers.

Local conservation organisations should be established in order to act as pressure groups for the inhabitants. Existing local organisations such as artist, and student clubs could be an embryo for these groups. Religious or traditional institutions such as *waqf* institution and neighbourhood societies could also be developed as pressure groups. The intellectuals of the district could form another group.

Actions should start from small-scale projects, the success of which would raise confidence and enthusiasm for the undertaking of larger ones. Individual projects could

include: cleaning and repair of decaying timber houses and deteriorating street facades, redesign and renovation of incompatibly-altered street facades, and design and construction of appropriate new buildings on vacant sites. Both small scale and larger-scale projects would require design and technical guidelines, as well as on-site advisory and supervisory assistance of architects and planners. Larger-scale actions would require financial support from government, businesses and funding agencies for heritage conservation. Such activities could include the rehabilitation of critical urban spaces and structures, such as Menara Street, Madurekso Square and Madurekso Mosque.

### **Conservation master planning and mini-planning**

The preparation of a series of conservation mini-plans, along with a master plan, would facilitate the development and conservation planning of Kudus. The master plan should cover the protected areas -- the entire historic Islamic district -- in conjunction with the overall land use, traffic, public facilities and housing development planning. The mini-plans should cover protected individual sites within the district.

The implementation of both the master plan and mini-plans requires planning and design guidelines, which incorporate measurable and non-measurable criteria. The establishment of these guidelines, in turn, requires assessment of physical patterns, forms and structures, and sensory and psychological aspects of the district and each site. Heritage district regulation, i.e. anti-removal, anti-demolition, zoning, land-use intensity, traffic, sign and urban-infill ordinances must also be established to ensure an effective implementation of the plans.

The qualitative guidelines must address:

- (1) ease of access, i.e. convenience, clarity, safety and orientation; context compatibility, i.e. harmony and fit with setting;
- (2) enhancement of views, i.e. scale, pattern and visual interest;
- (3) expression of identity, i.e. genius loci and spatial definition;
- (4) evocation of meaning, i.e. identity, structure, congruence, transparency or immediacy, activity, and behavioural setting;
- (5) livability, i.e. comfort or amenity, activity, care, control, vitality, scale, pattern, visual interest, variety and contrast.<sup>173</sup>

The quantitative guidelines must address aspects such as:

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<sup>173</sup> As discussed by Shirvani. See : Shirvani, op.cit., pp. 121-132.

- (1) site pattern descriptions
- (2) building facade volume, mass, and scale
- (3) pattern and position of openings
- (4) style, shapes, size, and placement of signage

The scope and scale of the plans and priorities for their implementation should be established according to available resources. The master plan should include the zoning of the central quarters of the district as a protected heritage district; this could be expanded to include the peripheral quarters. The mini-plans should include:

- (1) rehabilitation of Madurekso Square with emphasis on the revival of traditional market and public gathering as "a place for people";
- (2) redevelopment of Menara Street and Madurekso Street with emphasis on the revival of pedestrian activities and street amenities, and repair and reconstruction of decaying building facades;
- (3) restoration of selected damaged facades along Menara Street to partly revive the original appearance of this main street of the old town ;
- (4) repair of Madurekso mosque in conjunction with (1);
- (5) infill development on economically strategic sites, i.e. vacant sites along Menara Street and abandoned, damaged buildings on Madurekso Street, and the introduction of contemporary uses for these sites;
- (6) rehabilitation and beautification of alleys in Kauman and Langgardalem quarters;
- (7) adaptation of abandoned tobacco warehouses in Langgardalem quarter for contemporary uses, i.e. visitor accommodation, offices of conservation groups, venues of communal meetings;
- (8) repair of selected timber houses in Kauman and Langgardalem quarters, which represent five roof types,;
- (9) preservation of selected good quality and complete timber houses, such as that of Haji Umar Ali in Kauman;
- (10) adaptation of about-to-be sold timber houses for commercial uses, such as visitors' guest houses, showrooms for embroidery and other home-industries, in order to arrest sale and removal of these houses.

### **Historical continuity in urban environments**

Urban conservation of the district should emphasise historical continuity. Combination of old and new materials on buildings, and of traditional and contemporary architectural styles in urban environments reflects historical continuity. Honesty in the use of design principles, construction techniques and materials is crucial in dynamic

conservation works. Acceptable design approaches in construction of new buildings and restoration works are : harmonic integration and harmonic contrast. Both approaches should aim to achieve context compatibility within the district. **Appendix III** includes description of common approaches to dynamic conservation

Harmonic integration should apply the concept of "completion of an ensemble". The architectural styles, forms and materials of contemporary designs should be in the same spirit with the existing fabric and setting of the sites and structures. The rehabilitation of Madurekso Square, the redevelopment of Menara and Madurekso streets and the repair of Madurekso Mosque could adopt this approach.

Harmonic contrast should employ "appropriate" disparity to avoid visual chaos in urban environments. The juxtaposition of many disparate styles, forms and materials creates contrast, whereas conformity of scale, height, proportion and layout of buildings creates harmony in the setting. A balance between the two would result in harmonic contrast. Infill development of vacant sites and abandoned, damaged buildings along Menara and Madurekso streets could adopt this approach to create harmonic contrast in the district. The use of this approach in adaptation of abandoned tobacco warehouses and about-to-be-sold timber houses would result in harmonic contrast between their exteriors and interiors.

### **Acceptable "fake purity" in building restoration**

The practice of "fake purity" could be acceptable in building restoration in cases where the maintenance of symbolic and spiritual values of a place is more important than the protection of its authentic fabric. This should not be confused with imitation resulting from direct copying in the reconstruction of damaged buildings and the construction of the new ones, which is unacceptable. **Appendix III** includes discussion on this approach.

The repair of timber structures in Sunan Kudus' cemetery, restoration of selected facades of Menara and Kyai Telingsing streets, and repair, restoration and preservation of selected traditional timber houses in the district could adopt this practice.

### **Sustainable heritage conservation**

Continuation of traditional building technology is essential to the long-term success of any conservation initiative. The support, teaching and training of local skills and



knowledge must be integrated into conservation planning, and must be an essential feature of building works.<sup>174</sup>

The few Kudus' wood carvers along with their workshops provide an opportunity to revive traditional building skills and knowledge. Common building labourers should master traditional plastered-brick building designs and techniques. Alternative materials, such as good quality, less expensive types of timber should be sought to replace teakwood, and less porous, fabricated clay tiles for roofing should be used to replace the porous, traditionally hand-made tiles. The traditional size, forms and decorative features of the tiles, however, should be retained. Decorative clay tile roofs create a distinctive appearance in Kudus' traditional houses.

### **Control of incompatible yet indispensable uses**

In order to foster the socio-economic viability of the district, urban heritage conservation should aim to enhance public amenities in urban spaces. This could be undertaken through the rehabilitation of old streets and squares, which emphasizes the revival of pedestrian spaces and small-scale retail uses. Given the fact that these streets and squares have been occupied by vehicular and non-vehicular traffic, as well as a number of street vendors, particular care needs to be taken in order to avoid conflicts of interests, while providing maximum advantages to the local community.

Ideally, existing old urban spaces in the historic districts, such as Madurekso Square and Menara, Madurekso and Kyai Telingsing streets, should be returned to their original use as spaces for pedestrians and non-vehicular traffic. However, it is impossible to totally eliminate traffic, parking and unauthorised vending from the square and these streets. Both the accommodation and control of incompatible yet indispensable uses, therefore, would be the appropriate method.

Vehicular traffic, for instance, could still be allowed on Kyai Telingsing Street, but should be partly restricted on Menara Street and totally prohibited on Madurekso Street, except for loading-unloading services for the shops. Parking of tricycles could be located on some parts of one side of the streets, while allowing the other side for street furniture. The middle of the street should be either a pedestrian space or one-way restricted vehicular traffic.

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<sup>174</sup> This concern has been inherent in the work of Sanday in Nepal. See : John Sanday, 'Traditional Crafts and Modern Conservation Methods in Nepal', in *Appropriate Technologies in the Conservation of Cultural Property*, Unesco, Paris, 1981.

Stalls and vendors could be centralised in Madurekso Square, reviving its previous use as a traditional market place. They could also be located on some parts of the streets, on the side where street furniture is located. The structure of the stalls should be spatially compatible with the square and streets and visually in harmony with the street facades. Further spontaneous development of stalls and vendors could still be tolerated in the square, depending on available space.

### **Inventory and documentation of critical sites**

Since traditional urban environments, such as the historic Islamic district of Kudus, and vernacular architecture, such as the timber houses of Kudus, are diminishing, investigation, recording, and documentation programmes are urgently required. This would provide a body of data if physical conservation work does not take place. (Appendix IV contains description of some common techniques of inventory and documentation.)

This study is expected to contribute to a broader view of architectural conservation in Indonesia. It may persuade readers of the importance of considering historic districts as communities entitled to grow and change and as whole entities worthy of conservation. By implication, the study also argues that neighbourhoods in physical and economic decline, urban districts of smaller towns and remote rural areas are as worthy of conservation as economically strategic commercial districts in urban centres of bigger cities. Underlying the research aims of the study is the hope that this project will inspire others to act soon to prevent the loss of the Islamic district of Kudus and other unique areas.

The safeguarding of a traditional urban environment, as in the case of the historic Islamic district of Kudus, must be concerned with both the place and the people. The potential, constraints, needs and aspirations of the inhabitants or users are as important as the conditions, constraints and requirements of the fabric and setting of the place. The conservation of critical historic districts must be strongly directed by government programmes, but they must derive direction and political support from the communities they intend to protect. These are fundamental conditions for the development of conservation planning for Kudus and its historic Islamic district and analogous places in Indonesia and elsewhere.

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\_\_\_\_\_. 'Kita membangun berdasarkan kepribadian sendiri' (We develop based on our identity). 15 July 1983.

\_\_\_\_\_. 'Belum menjadi kenyataan : pemilik rumah bila akan menjual harus minta ijin Pemda' (Not in reality yet : owners must seek government's permission prior to sale of their traditional houses). 12 January 1984.

\_\_\_\_\_. 'Laporan dari Kabupaten Kudus : jumlah rumah adat asli makin menyusut' (A report from Kudus Regency : the number of traditional houses continues to decrease). 1 April 1992, p. vii.

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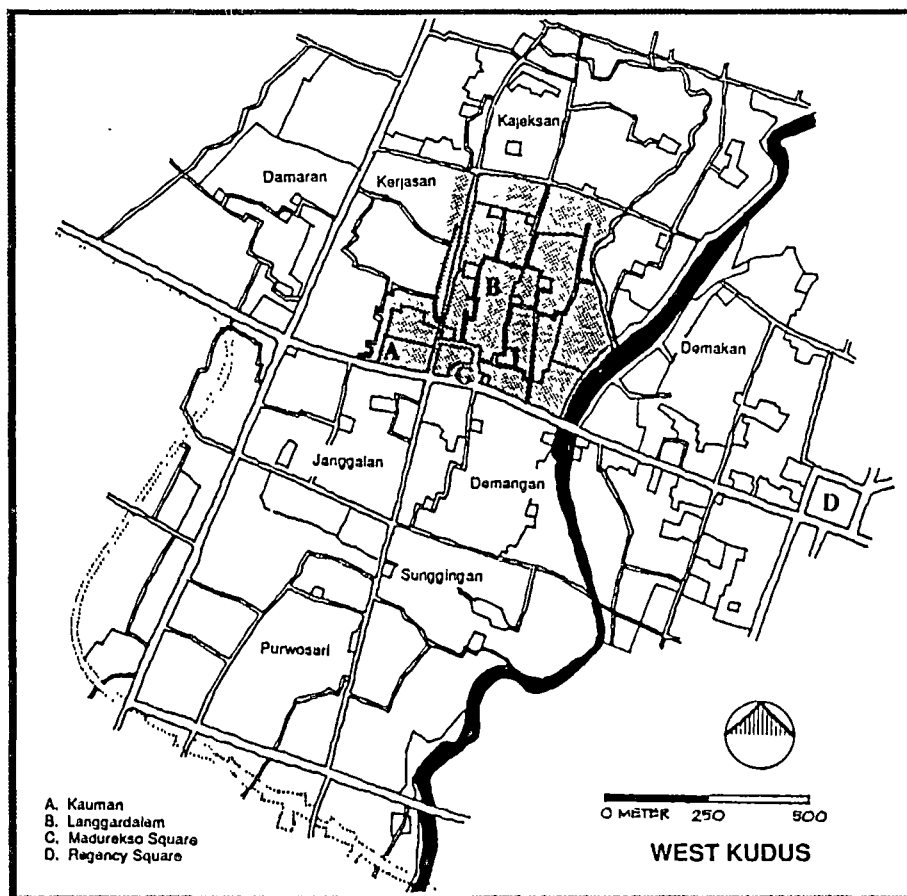
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# APPENDIX I :

## Documentation of the Study Area and Selected Buildings

**The Study Area** (Refer to Figs. I.1 and I.2)

- 1A Urban plan of the study area : aerial view
- 1B Urban plan of the study area : remaining timber houses
- 1C Urban plan of the study area : public buildings and spaces
- 2A Menara Street : lay out of buildings
- 2B Menara Street : building facades



**Fig. I.1**

Key plan :  
the study area

Drawing based on  
field research in  
January-March 1993  
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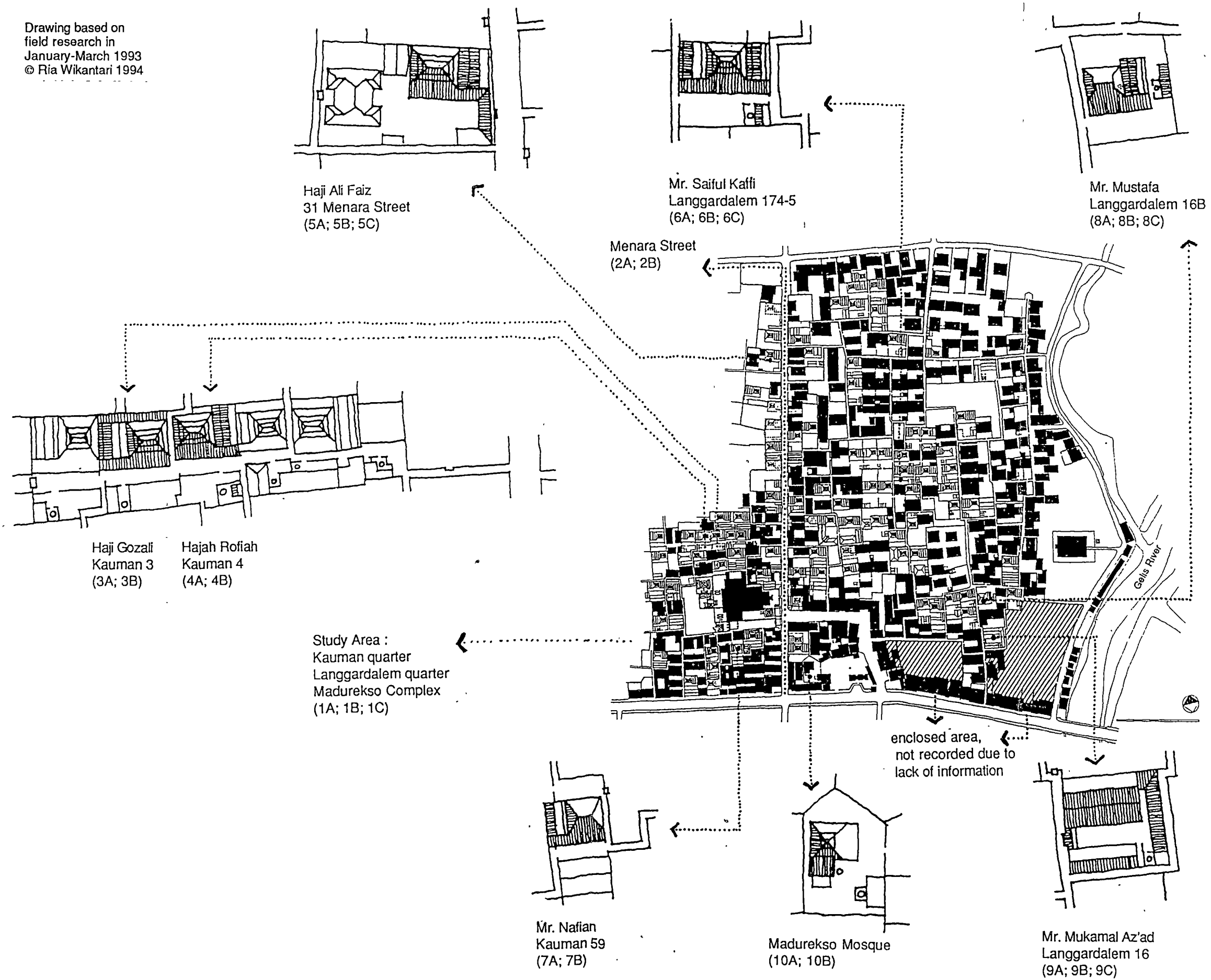


Fig. 1.2  
Key plan of the documentation : the study area, Menara Street, and selected buildings

**Selected Buildings (Refer to Fig. I.2)****Residence of Haji Gozali, Kauman 3**

- 3A Plan, Longitudinal Section; Elevation of Inner Partition, Front Elevation  
 3B Transversal Section, Side Elevation, Details

**Residence of Hajah Rofiah, Kauman 4**

- 4A Plan, Longitudinal Section, Front Elevation  
 4B Elevation of Inner Partition, Transversal Section, Side Elevation, Details

**Residence of Haji Ali Faiz, 31 Menara Street**

- 5A Plan  
 5B Side Elevation (street facade), Elevation of Inner Partition, Front Elevation  
 5C Transversal Section, Longitudinal Section, Detail

**Residence of Mr. Saiful Kaffi, Langgardalem 174-5**

- 6A Plan  
 6B Longitudinal Section, Elevation of Inner Partition, Front Elevation  
 6C Transversal Section, Side Elevation, Detail

**Residence of Mr. Nafian, Kauman 59**

- 7A Plan, Longitudinal Section, Elevation of Inner Partition, Front Elevation  
 7B Transversal Section, Side Elevation, Detail

**Residence of Mr. Mustafa, Langgardalem 16 B**

- 8A Plan  
 8B Longitudinal Section, Elevation of Inner Partition, Front Elevation  
 8C Transversal Section, Side Elevation, Details

**Residence of Mr. Mukamal Az'ad, Langgardalem 16**

- 9A Plan  
 9B Longitudinal Section, Elevation of Inner Partition, Front Elevation  
 9C Transversal Section, Side Elevation, Detail

**Madurekso Mosque**

- 10A Plan  
 10B Longitudinal Section, Elevation of Inner Partition, Front Elevation, Transversal Section, Side Elevations

**Preliminary List of Timber Houses in the Study Area****Existing timber houses in the study area : <sup>1</sup>**

No.	Adress :	Owner :	Type :
1	Kauman 2	Mr. Mashudi	<i>joglo</i>
2	Kauman 3	Haji Gozali & others	<i>joglo</i>
3	Kauman 4	Hajah Rofiah	<i>joglo</i>

<sup>1</sup> Based on field research carried out in January - March 1993. Most of the houses are incomplete, due to sale of parts of the interior or decay of parts of the exterior.



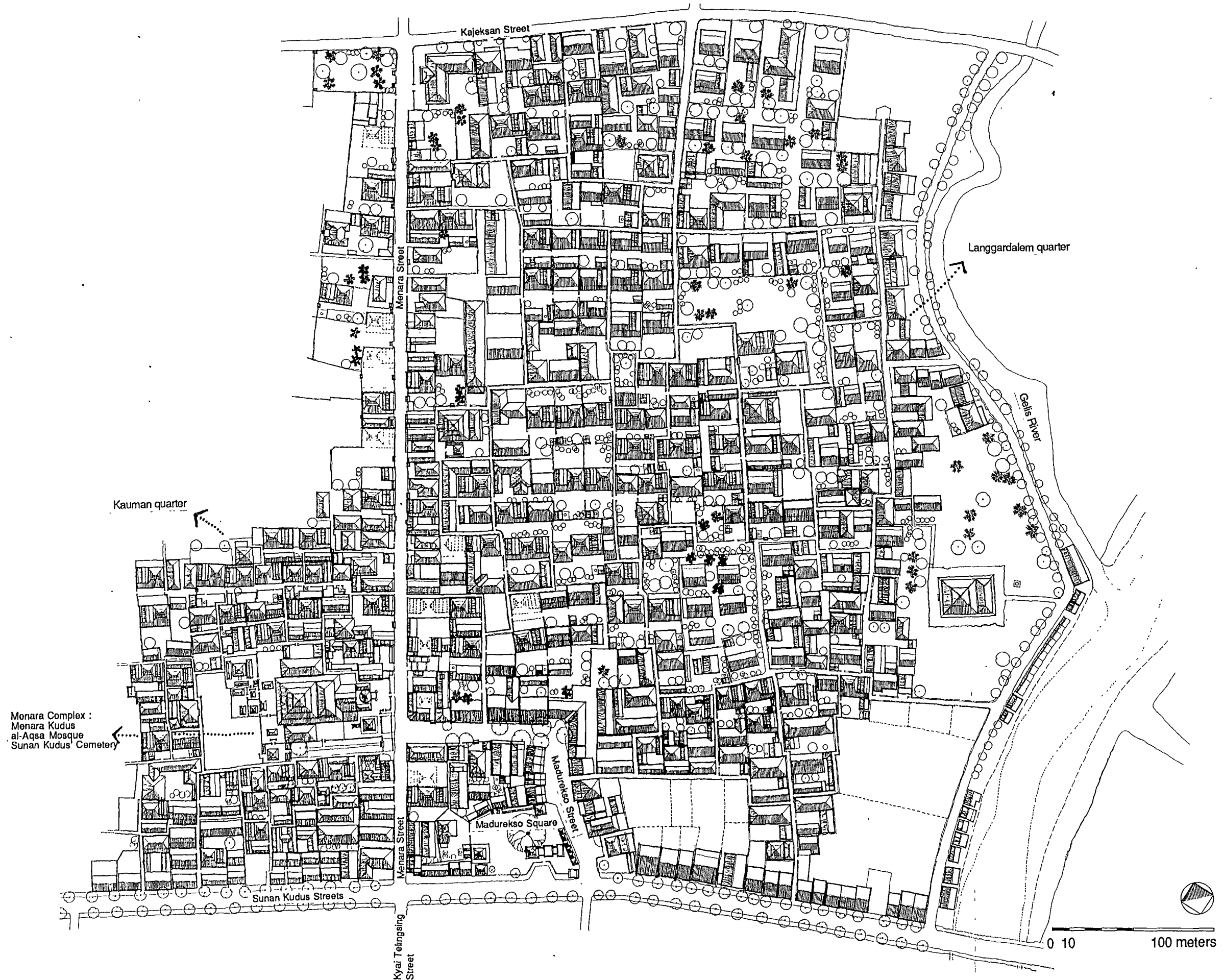
4	Kauman 5	Mrs. Qodriyah	<i>joglo</i>
5	Kauman 6	Haji Noorchamid	<i>joglo</i>
6	Kauman 14	(unclear)	<i>joglo</i>
7	Kauman 24-6	Mr. Akmal & others	<i>joglo</i>
8	Kauman 30	(unclear)	<i>joglo</i>
9	Kauman 31	Mr. Irvan	<i>limasan</i>
10	Kauman 35-6	Haji Muhamad & others	<i>joglo</i>
11	Kauman 37-8	Mr. Abror/Mrs. Muna'amah	<i>joglo</i>
12	Kauman 43	Mr. Harun & others	<i>joglo</i>
13	Kauman 44	Haji Misbah	<i>payon</i>
14	Kauman 47	Haji Machin	<i>limasan</i>
15	Kauman 53	Mr. Faik Azmi	<i>joglo</i>
16	Kauman 54	Mrs. Siti Rochmah	<i>joglo</i>
17	Kauman 59	Mr. Nafian	<i>limasan</i>
18	Kauman 63	Haji Umar Ali/Haji Muid	<i>high joglo</i>
19	4 Menara Street	(unclear)	<i>high joglo</i>
20	11 Menara Street	Mr. Achmad Munif	<i>joglo</i>
21	14 Menara Street	Haji Fur'qan	<i>joglo</i>
22	17 Menara Street	Mr. Munjahid Muhtar	<i>joglo</i>
23	18 Menara Street	Haji Masum/Mrs. Manjiroh	<i>joglo</i>
24	21 Menara Street	Haji Dul Rachman	<i>joglo</i>
25	31 Menara Street	Haji Ali Faiz	<i>high joglo</i>
26	Langgardalem 16	Mr. Mukamal Az'ad	<i>payon</i>
27	Langgardalem 16B	Mr. Mustafa	<i>dorogepak</i>
28	Langgardalem 20	Mr. Sikun & others	<i>joglo</i>
29	Langgardalem 21	Mr. Suhud	<i>joglo</i>
30	Langgardalem 21A	(unclear)	<i>joglo</i>
31	Langgardalem 42	Mr. Rahmat	<i>joglo</i>
32	Langgardalem 43	Mr. Mahmud	<i>joglo</i>
33	Langgardalem 44	Mr. Muhamad Amin	<i>joglo</i>
34	Langgardalem 47	Mr. Machan	<i>joglo</i>
35	Langgardalem 49	Mr. Nur Ahmad	<i>joglo</i>
36	Langgardalem 50A	Mr. Ma'sum	<i>joglo</i>
37	Langgardalem 53	Haji Ya'kub	<i>joglo</i>
38	Langgardalem 63	Mr. Mujadi	<i>payon</i>
39	Langgardalem 65	Mr. Mujid	<i>joglo</i>
40	Langgardalem 115	(unclear)	<i>joglo</i>
41	Langgardalem 121	(unclear)	<i>payon</i>
42	Langgardalem 131	Haji Chusnan Thayib	<i>joglo</i>
43	Langgardalem 133	Mr. Sukiyo	<i>payon</i>
44	Langgardalem 151C	Mr. Abdul Ashof	<i>joglo</i>
45	Langgardalem 164	Mr. Abdullah	<i>joglo</i>
46	Langgardalem 165	Haji Umar	<i>joglo</i>
47	Langgardalem 169	Haji Ya'kub	<i>limasan</i>
48	Langgardalem 170	Mr. Kurnaen	<i>joglo</i>
49	Langgardalem 173	(unclear)	<i>joglo</i>
50	Langgardalem 174-5	Mr. Saiful Kaffi	<i>joglo</i>
51	Langgardalem 176	Mr. Irsyad	<i>joglo</i>
52	Langgardalem 179	Mr. Ma'mun	<i>joglo</i>
53	Langgardalem 181	Haji Ahmad Barhan	<i>joglo</i>
54	Langgardalem 193	Mr. Mashadi	<i>joglo</i>
55	Langgardalem 195	Mr. Sholeh	<i>joglo</i>
56	Langgardalem 201	Mr. Jaenuri	<i>joglo</i>

57	Langgardalem 204	Haji Muhamad Nur Zjabidi	<i>joglo</i>
58	Langgardalem 205	Haji Mas'ud Hamid	<i>joglo</i>
59	Langgardalem 211	Haji Aliasimin	<i>joglo</i>
60	Langgardalem 214	Mr. Abdul Kadir	<i>joglo</i>
61	Langgardalem 215	Mr. Abdul Kadir	<i>joglo</i>
62	Langgardalem 220	Mrs. Chanifah Muzainah	<i>joglo</i>
63	Langgardalem 221	Hajah Asfiyah	<i>joglo</i>
64	Langgardalem 222	Mr. Mussafak	<i>joglo</i>
65	Langgardalem 227	Mr. Yatna	<i>joglo</i>
66	Langgardalem 241	(unclear)	<i>joglo</i>
67	Langgardalem 242	Mr. Abdul Kadir	<i>joglo</i>
68	Langgardalem 244	Mr. Muhamad Asror	<i>joglo</i>
69	Langgardalem 245	(unclear)	<i>joglo</i>
70	Langgardalem 248	Mrs. Amnah	<i>joglo</i>
71	Langgardalem 254	(unclear)	<i>joglo</i>
72	Langgardalem 256	(unclear)	<i>joglo</i>
73	Langgardalem 284	Haji Hanafi	<i>joglo</i>

#### Lost timber houses in the study area : <sup>2</sup>

1	Langgardalem 23	Mr. Djaelani	sold
2	192 Sunan Kudus St.	Mr. Azwar	sold
3	6 Menara Street	(unclear)	unclear
4	8 Menara Street	Mr. Abdullah Noor	sold
5	10 Menara Street	Mrs. Suaedah	sold
6	23 Menara Street	Haji Muchtasor/Haji Muflih	sold
7	25 Menara Street	Haji Muchtasor/Mrs. Mukrifah	sold

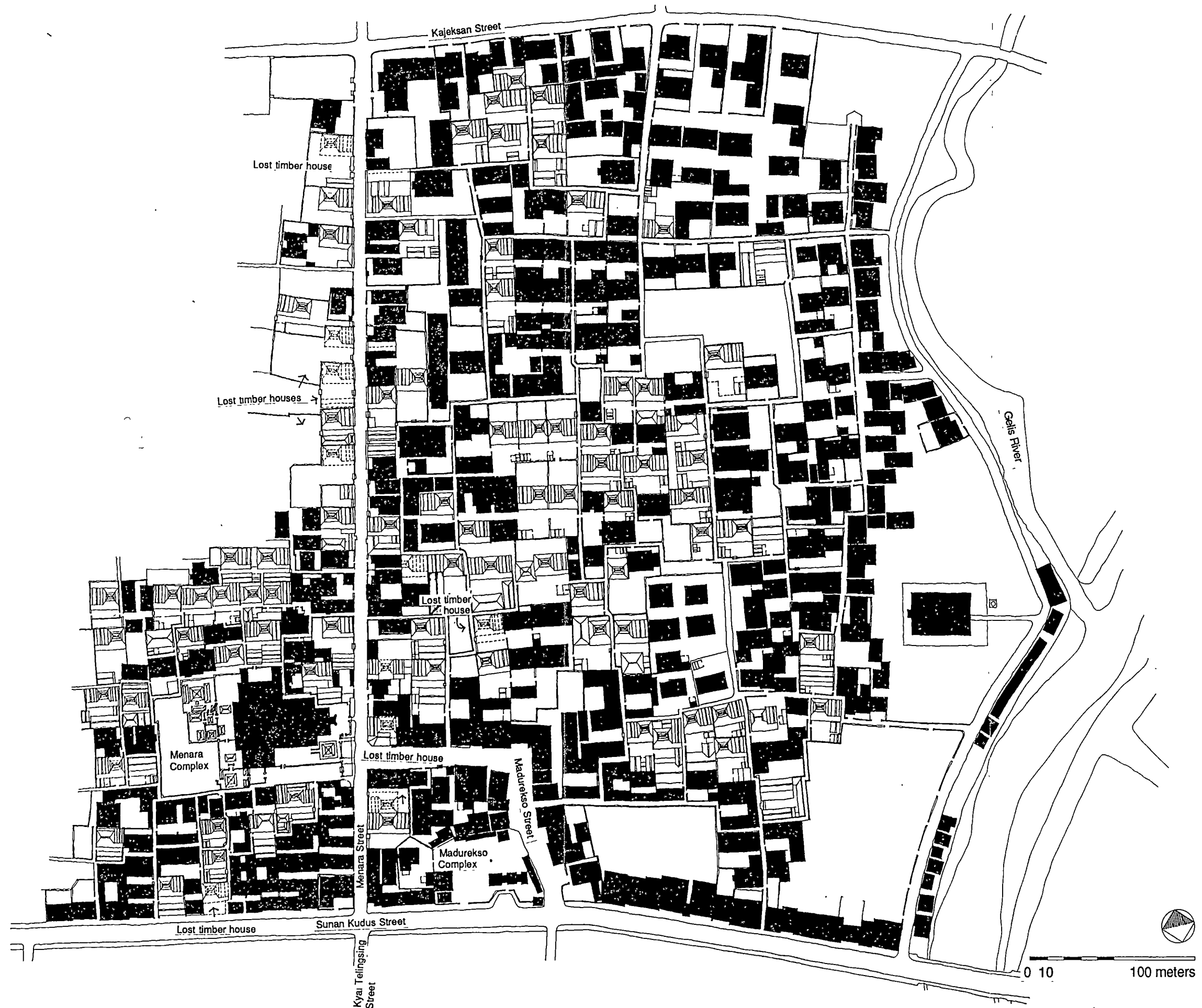
<sup>2</sup> Sale of whole houses since 1984.



Drawing based on  
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# URBAN PLAN OF THE STUDY AREA : Aerial View

1A



Drawing based on  
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# URBAN PLAN OF THE STUDY AREA : Existing Timber Houses

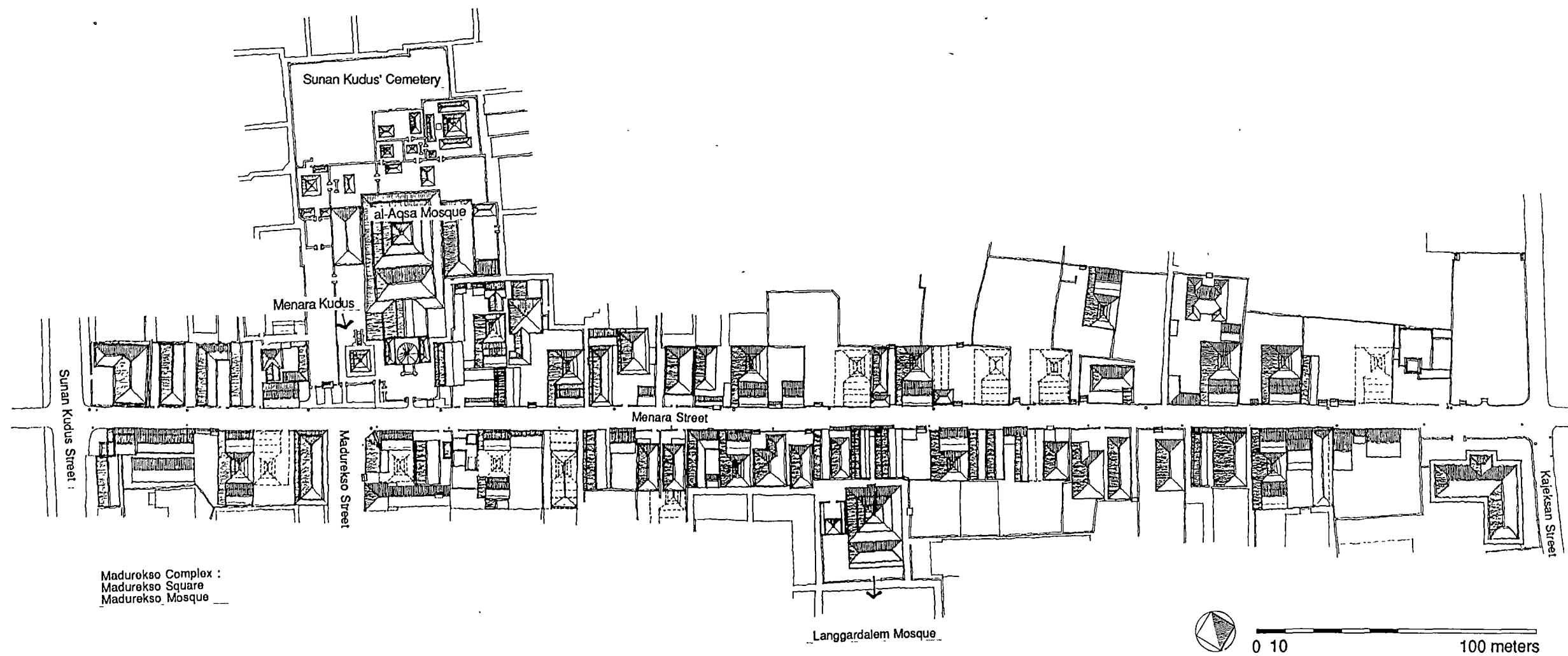
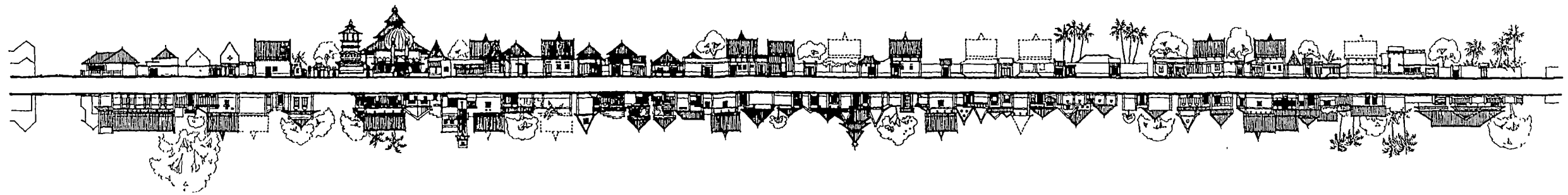
1B



Drawing based on  
field research in  
January-March 1993  
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# URBAN PLAN OF THE STUDY AREA : Public Spaces and Buildings

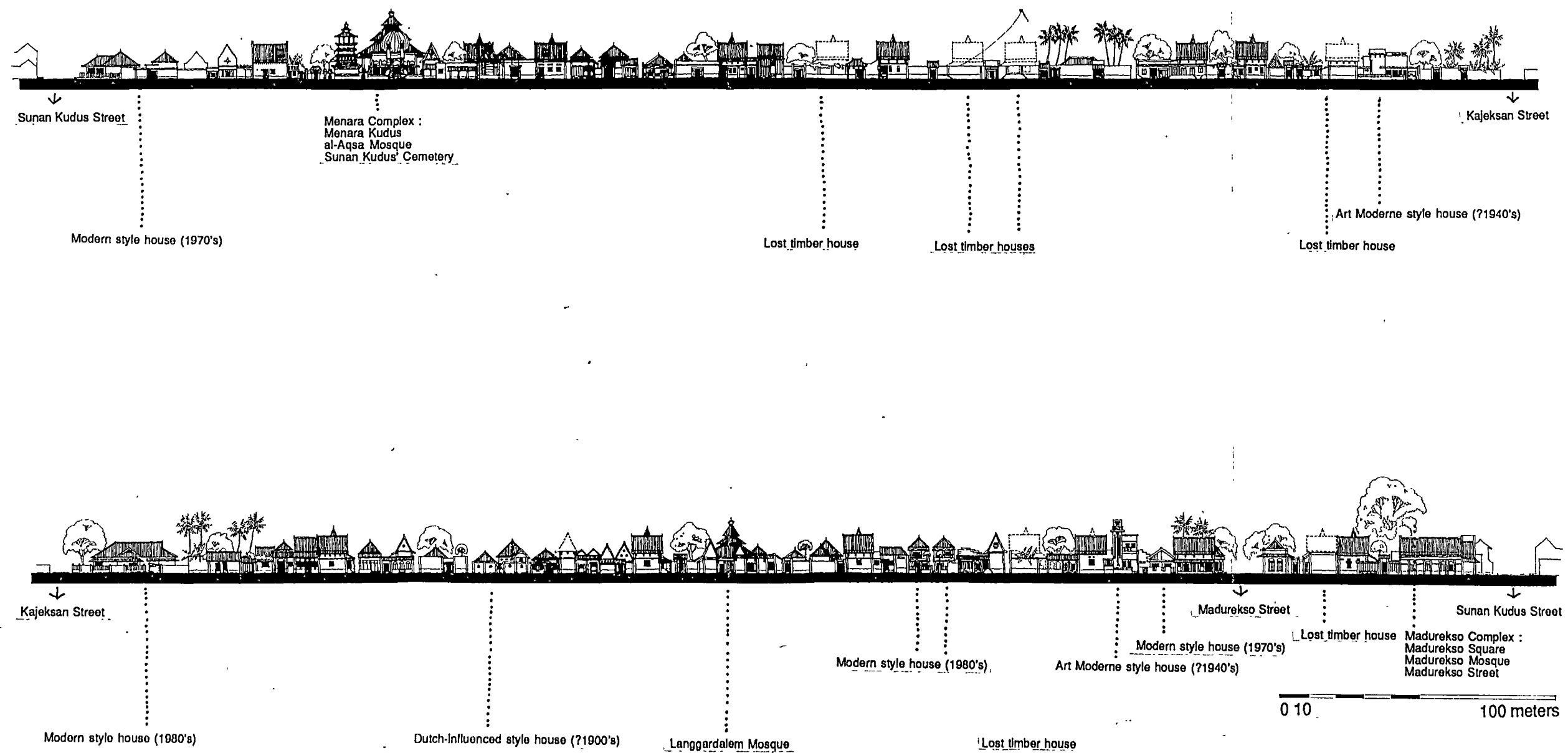
1C



Drawing based on  
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## MENARA STREET : Layout of Buildings

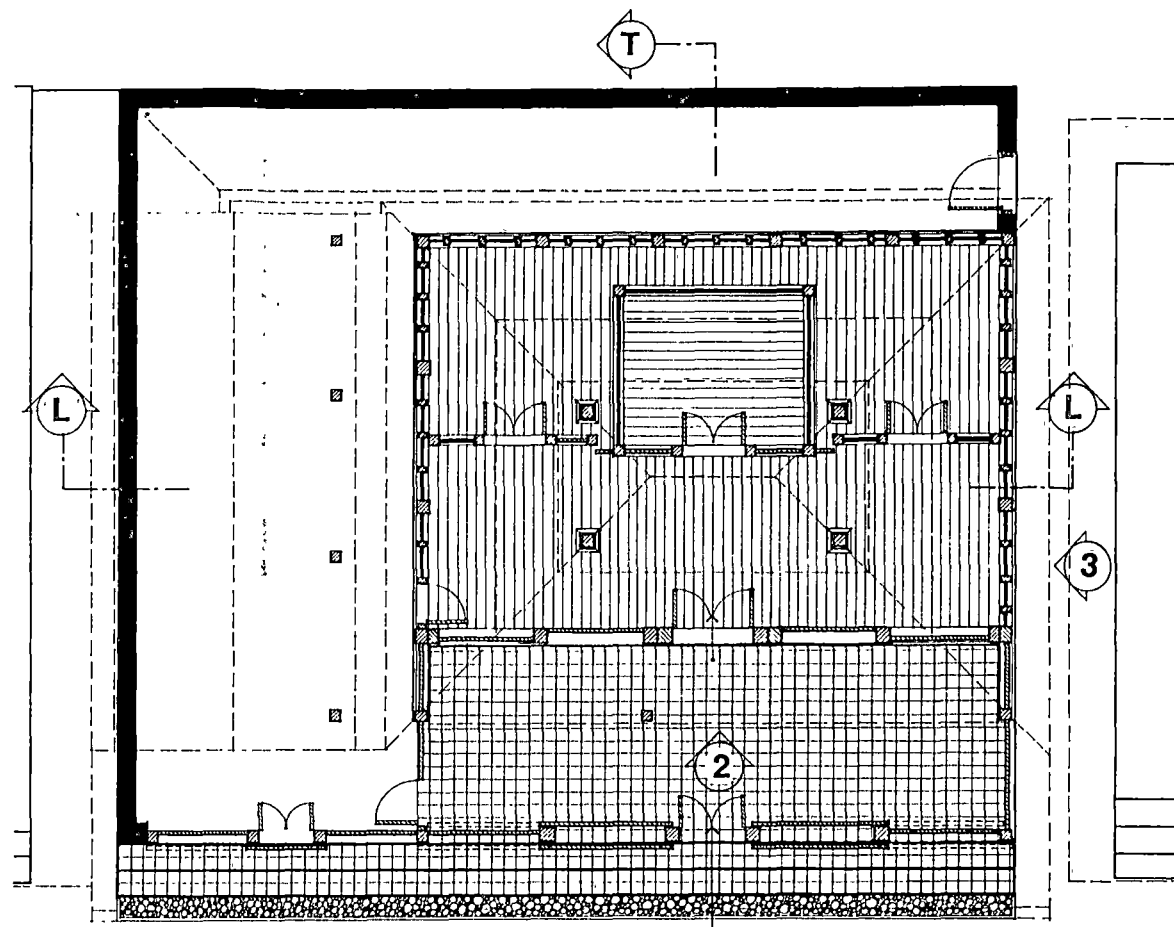
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Drawing based on  
field research in  
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## MENARA STREET : Building Facades

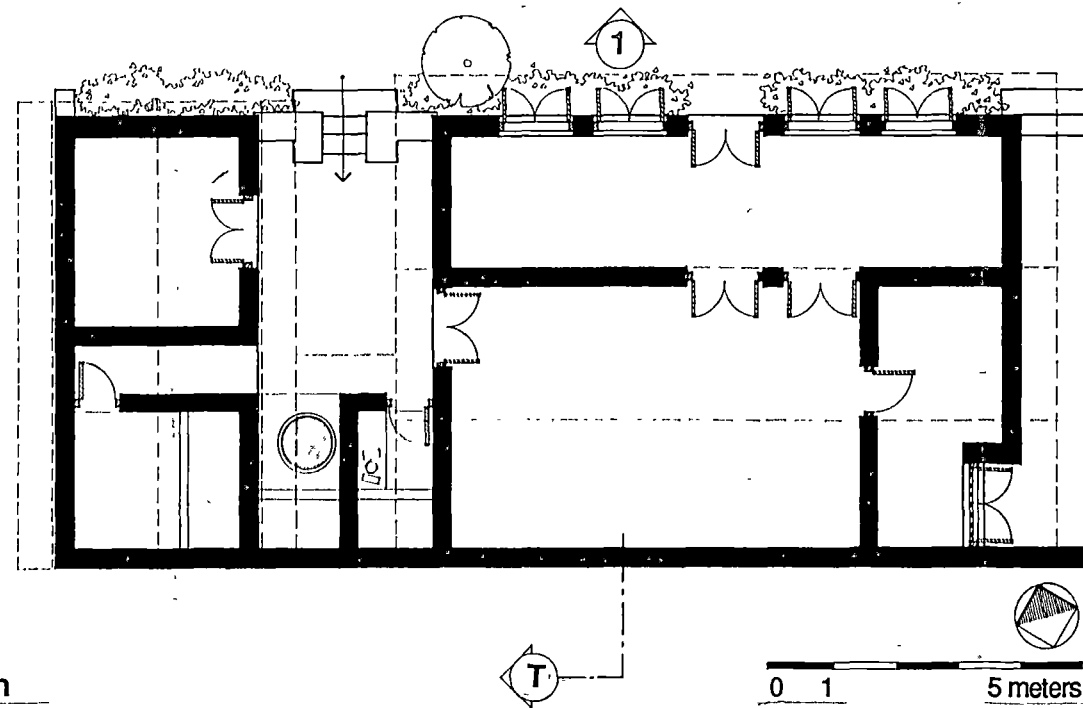
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Longitudinal Section (L-L)

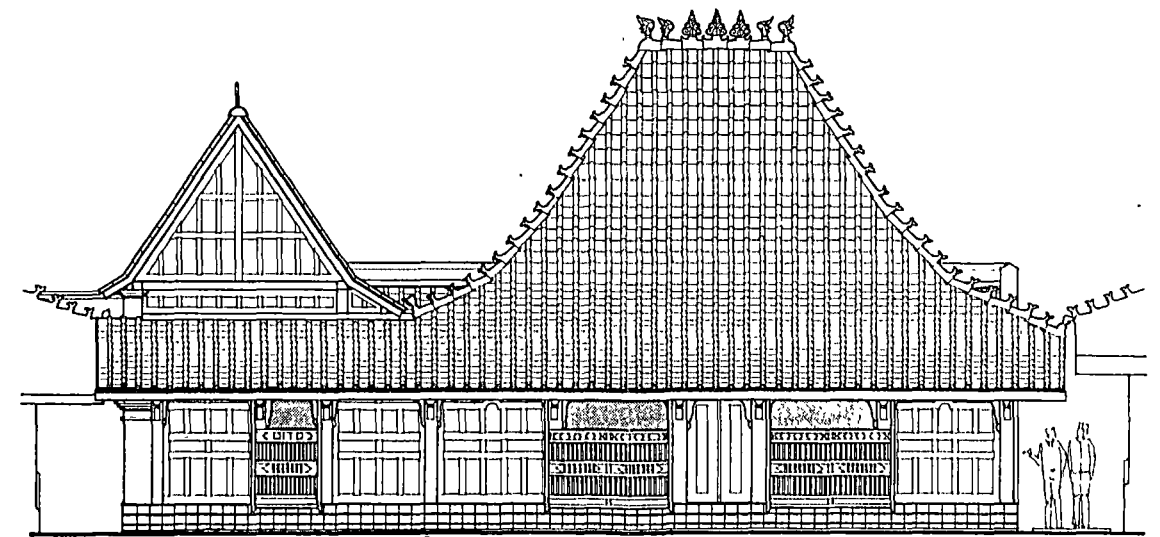


Elevation of Inner Partition (2)



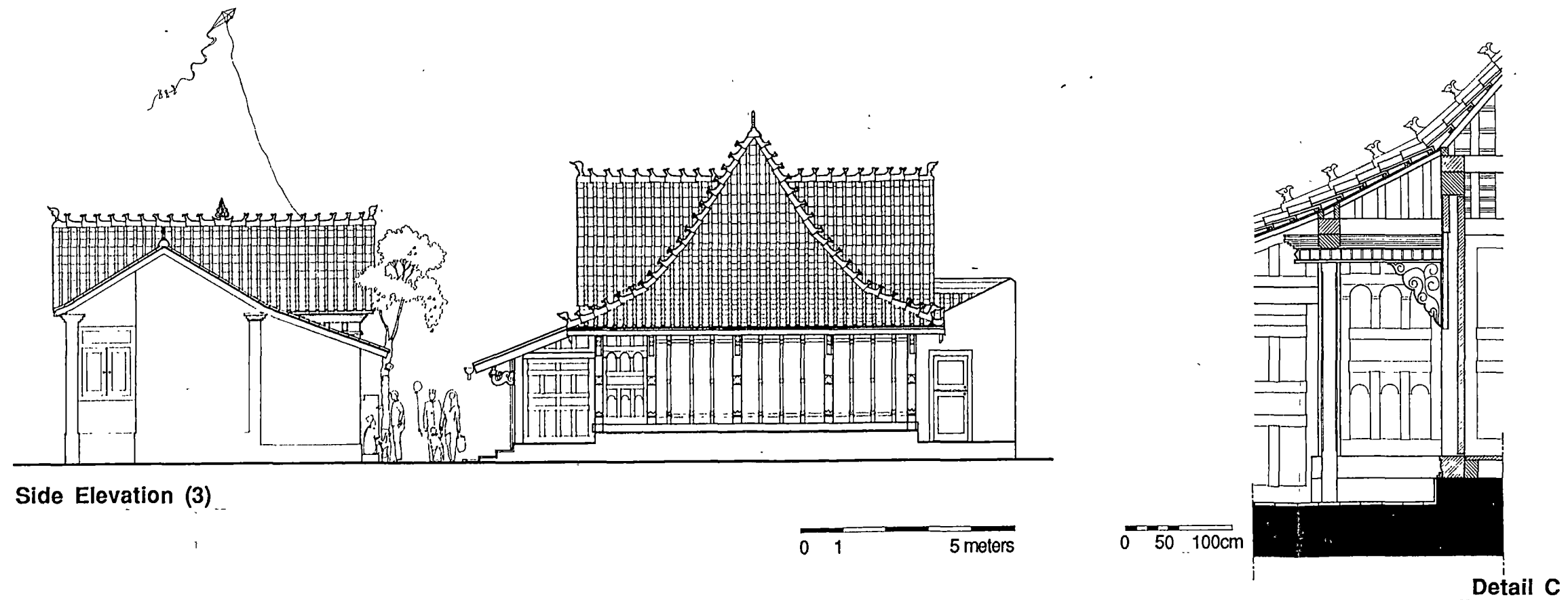
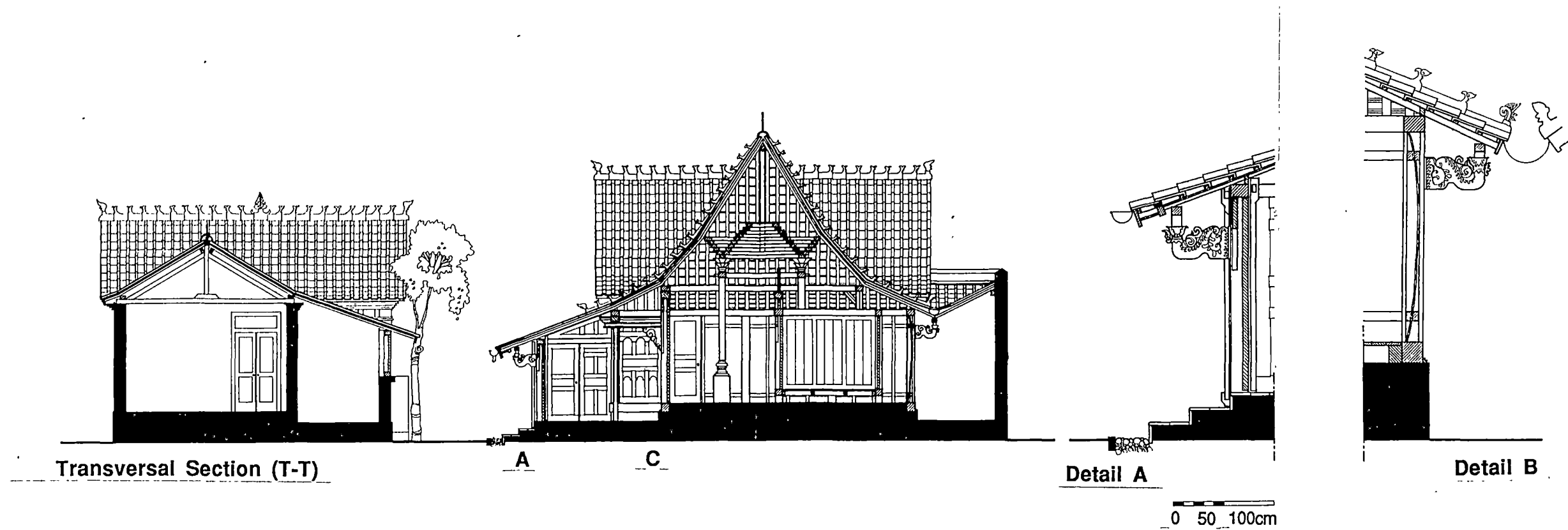
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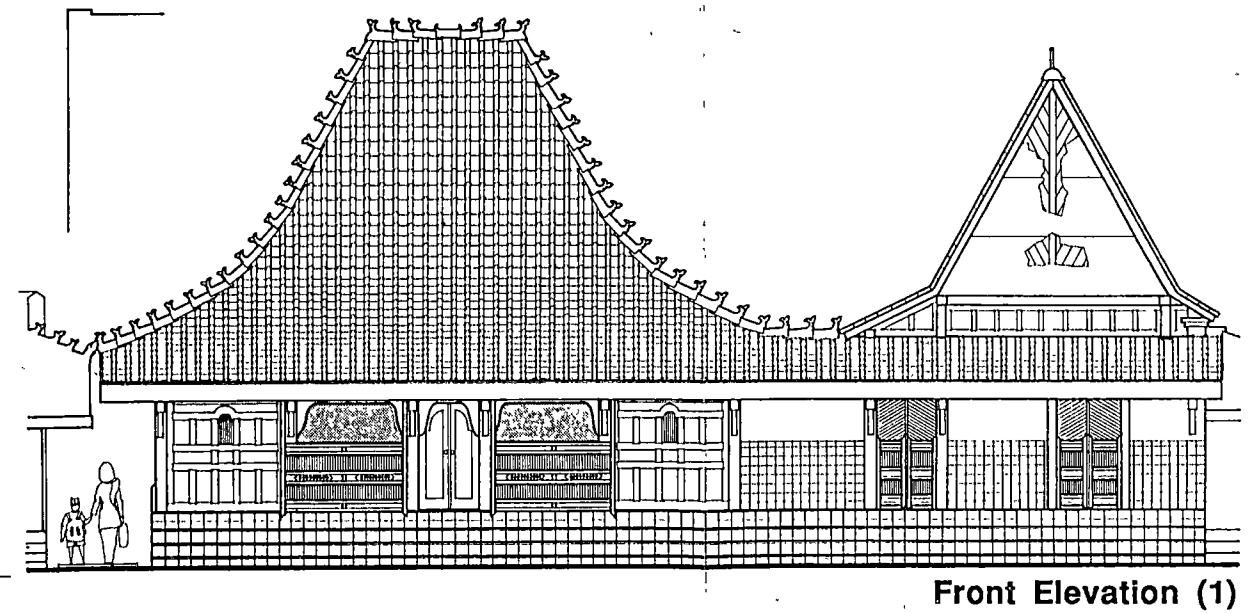
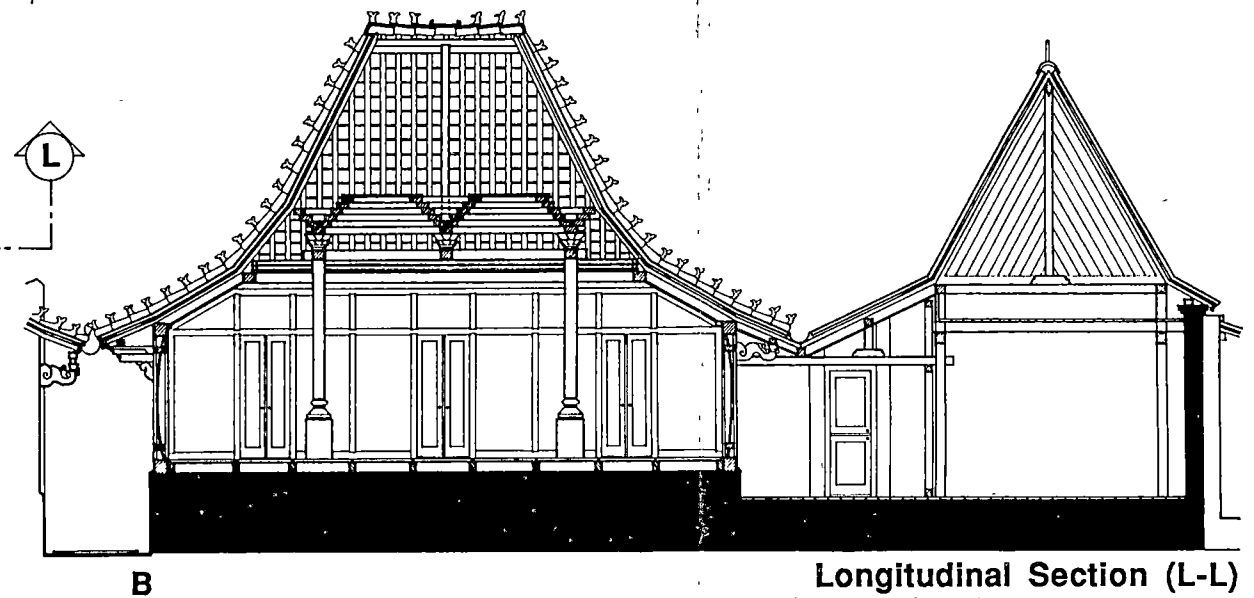
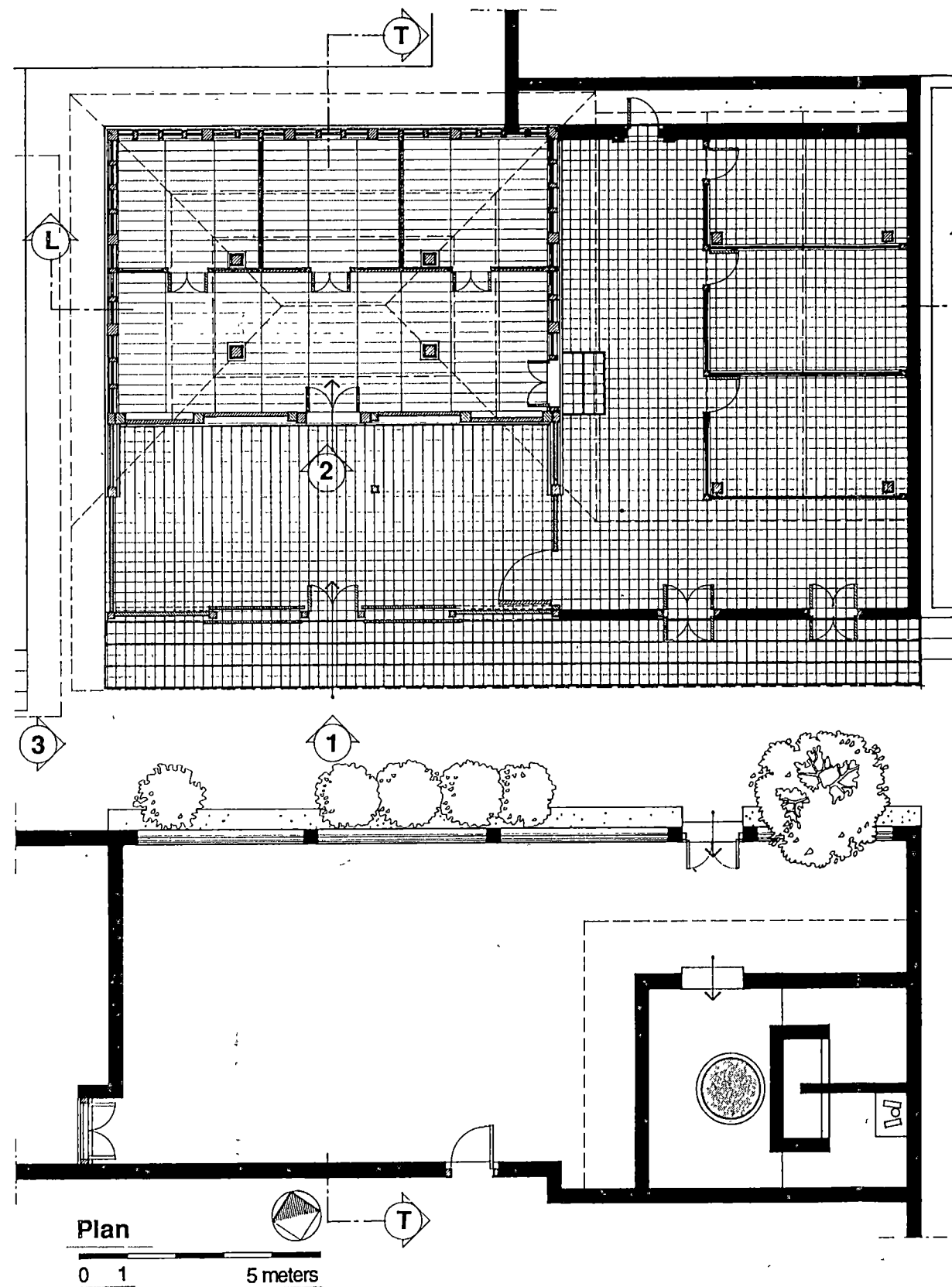
# RESIDENCE OF HAJI GOZALI Kauman 3



Front Elevation (1)

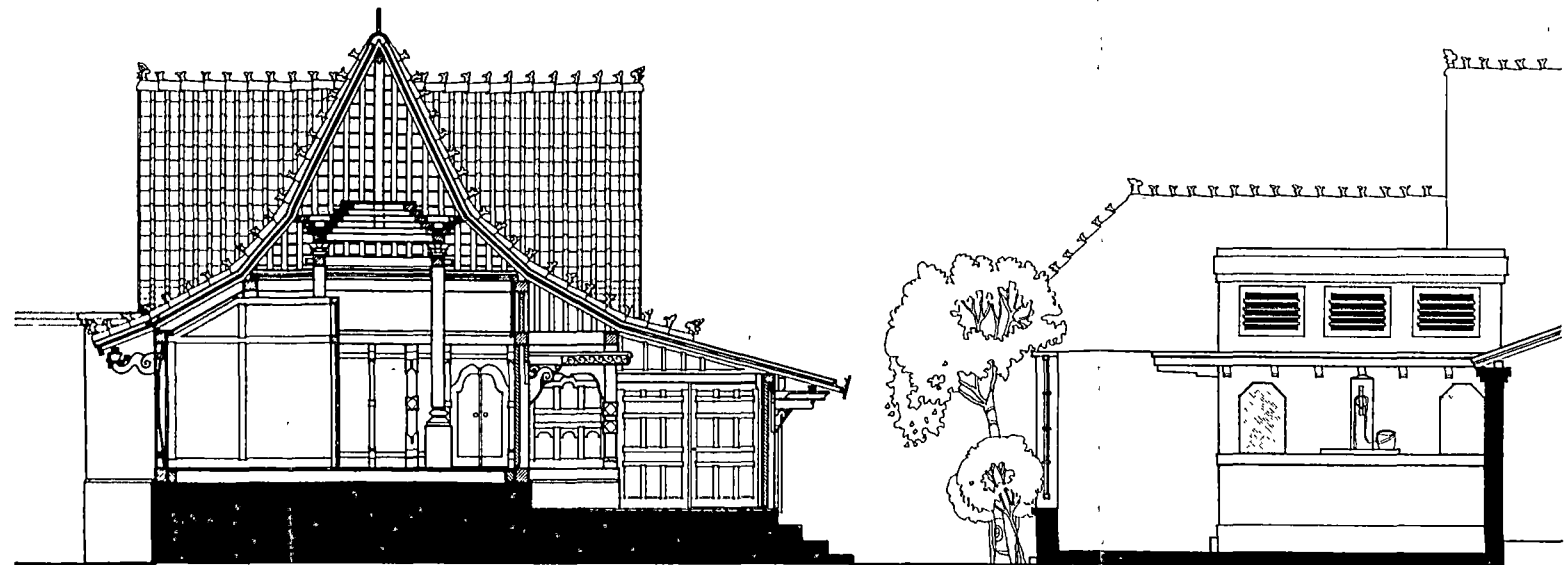






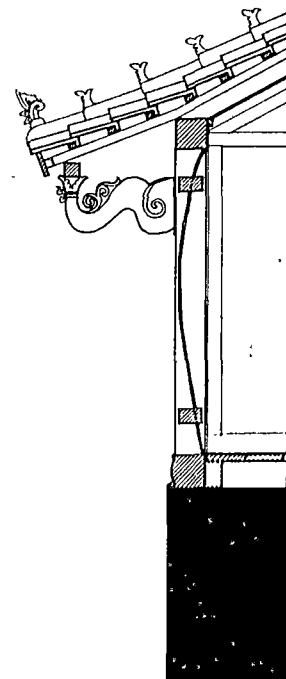


Elevation of Inner Partition (2)

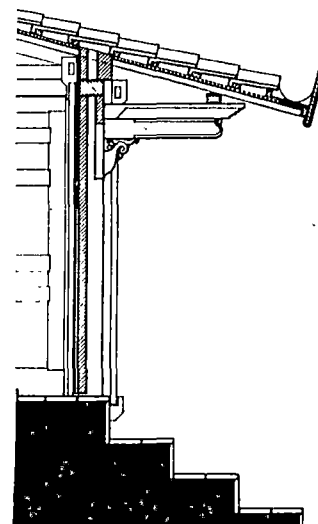


A

Transversal Section (T-T)

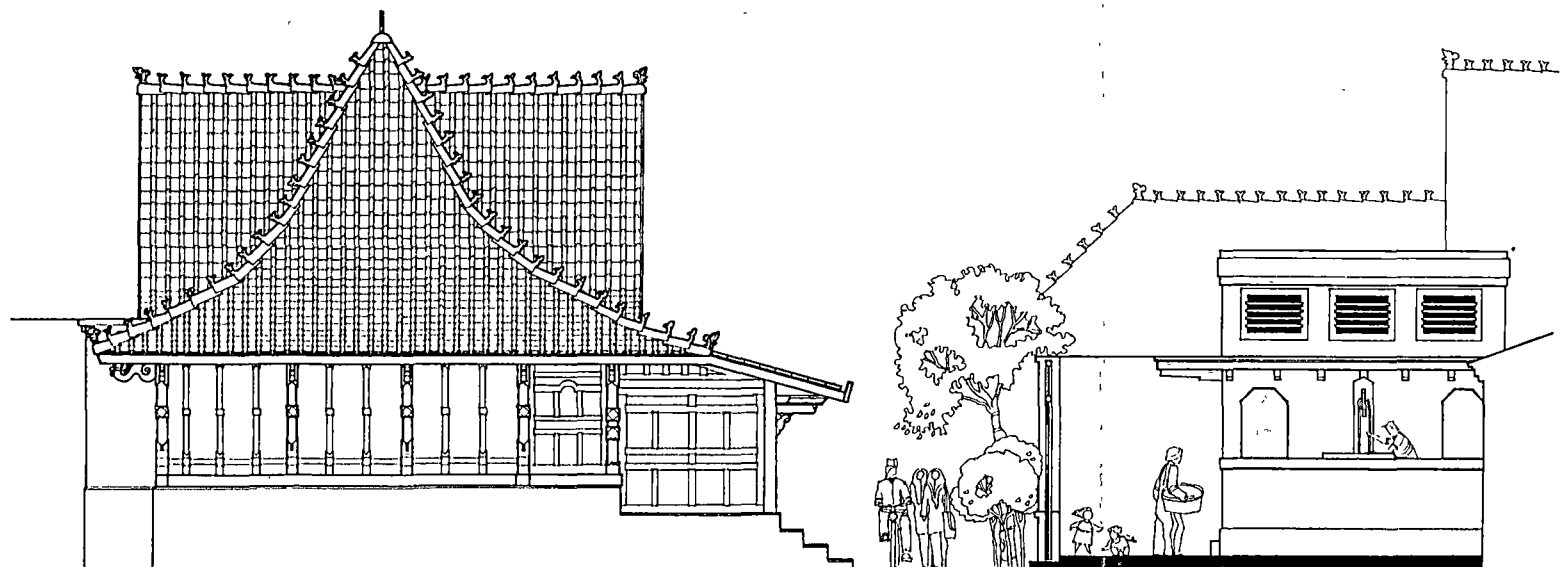


Detail B



Detail A

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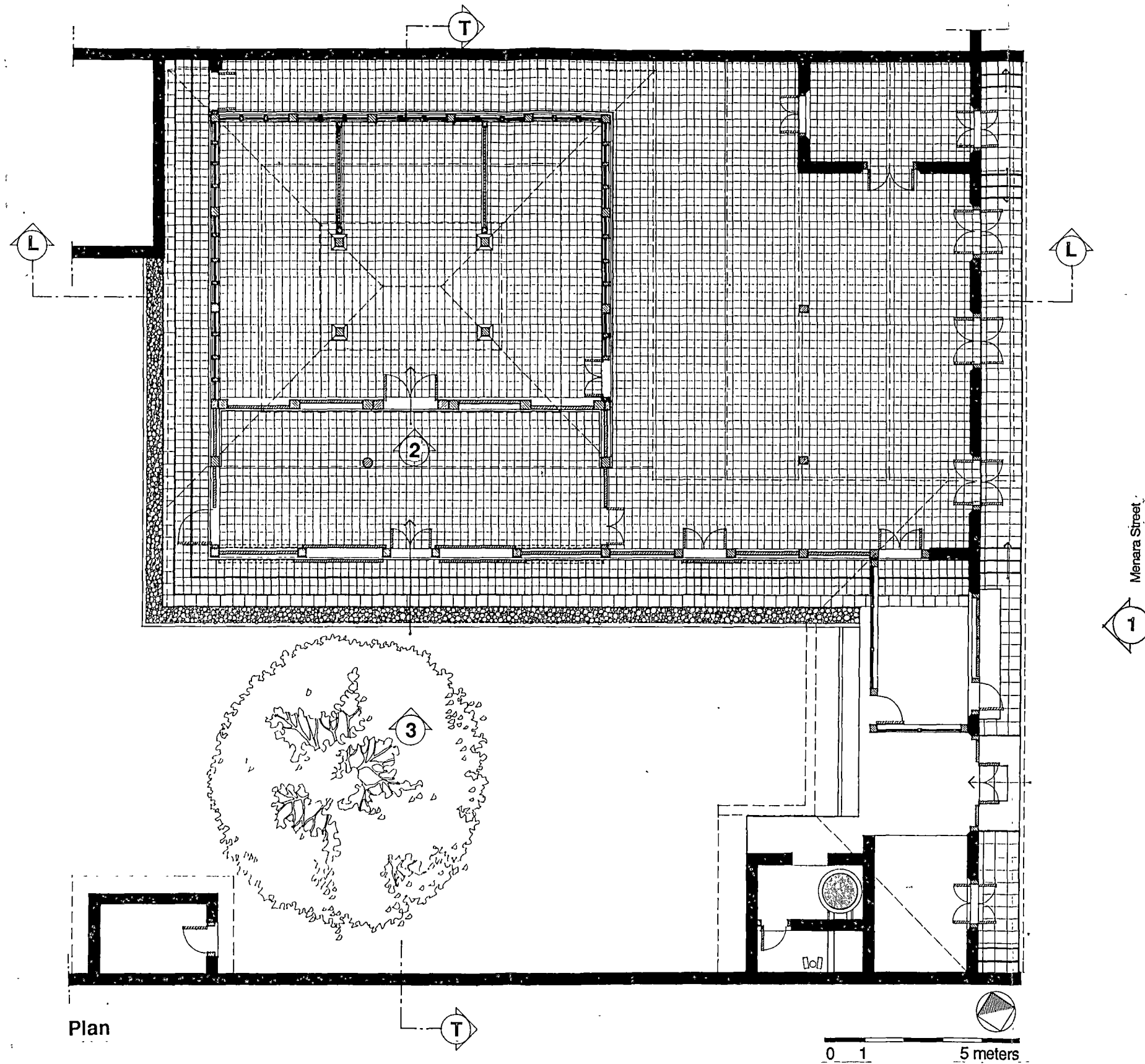
Side Elevation (3)

0 1 5m

Drawing based on  
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RESIDENCE OF HAJAH ROFIAH  
Kauman 4

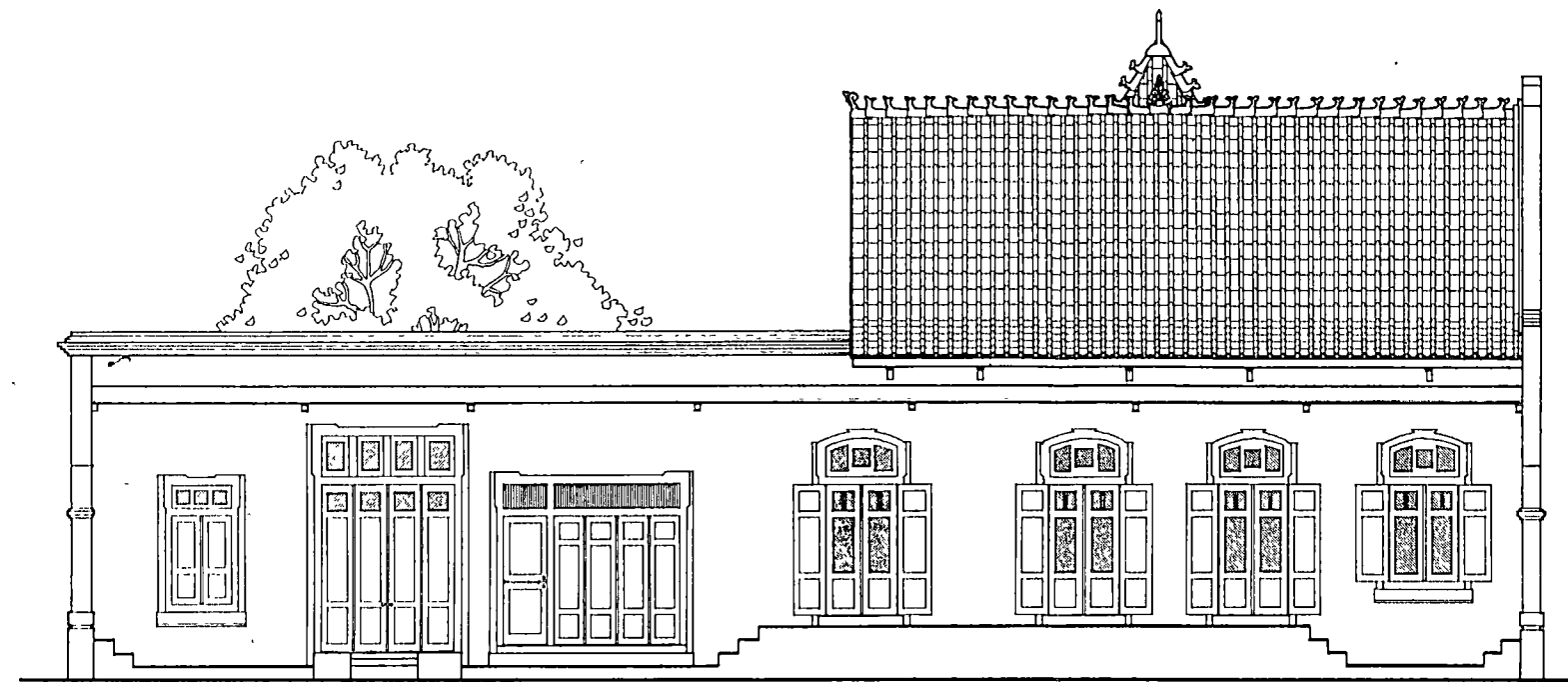
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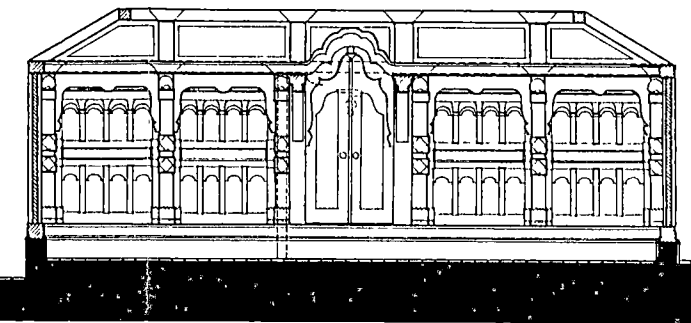
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RESIDENCE OF HAJI ALI FAIZ  
31 Menara Street

5A

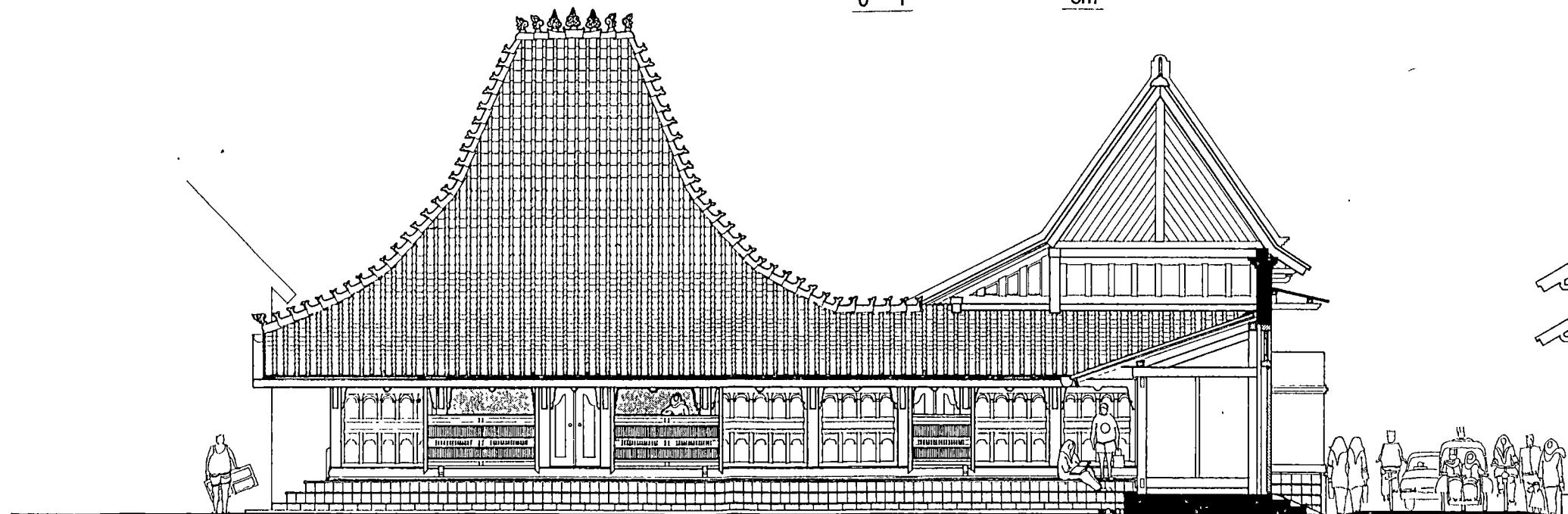


Street Facade (1)



Elevation of Inner Partition (2)

0 1 5m

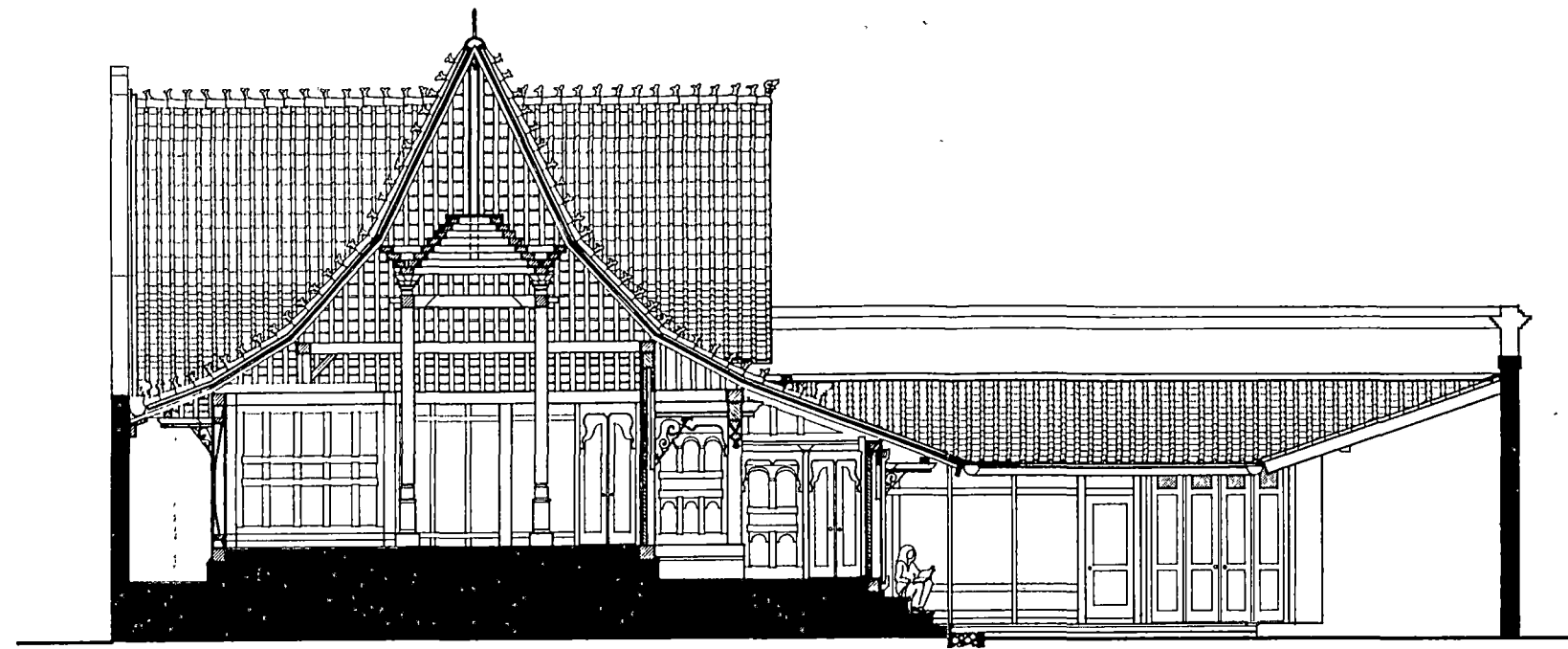


Front Elevation (3)

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RESIDENCE OF HAJI ALI FAIZ  
31 Menara Street

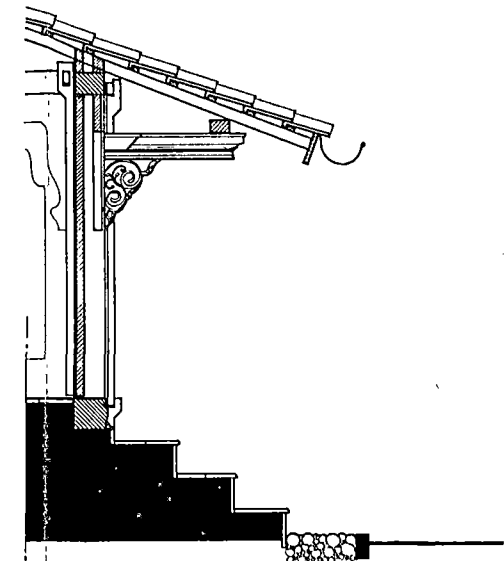
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Transversal Section (T-T)

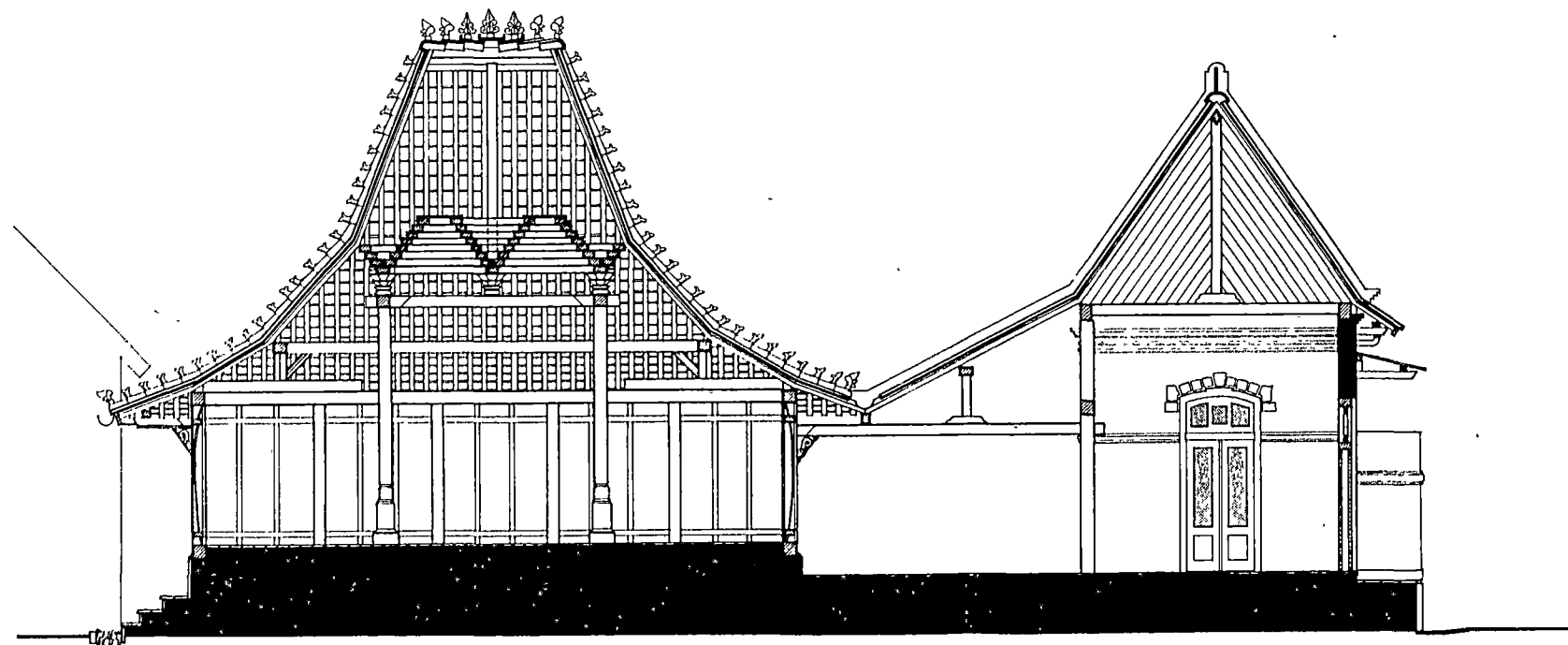
A

0 1 5m

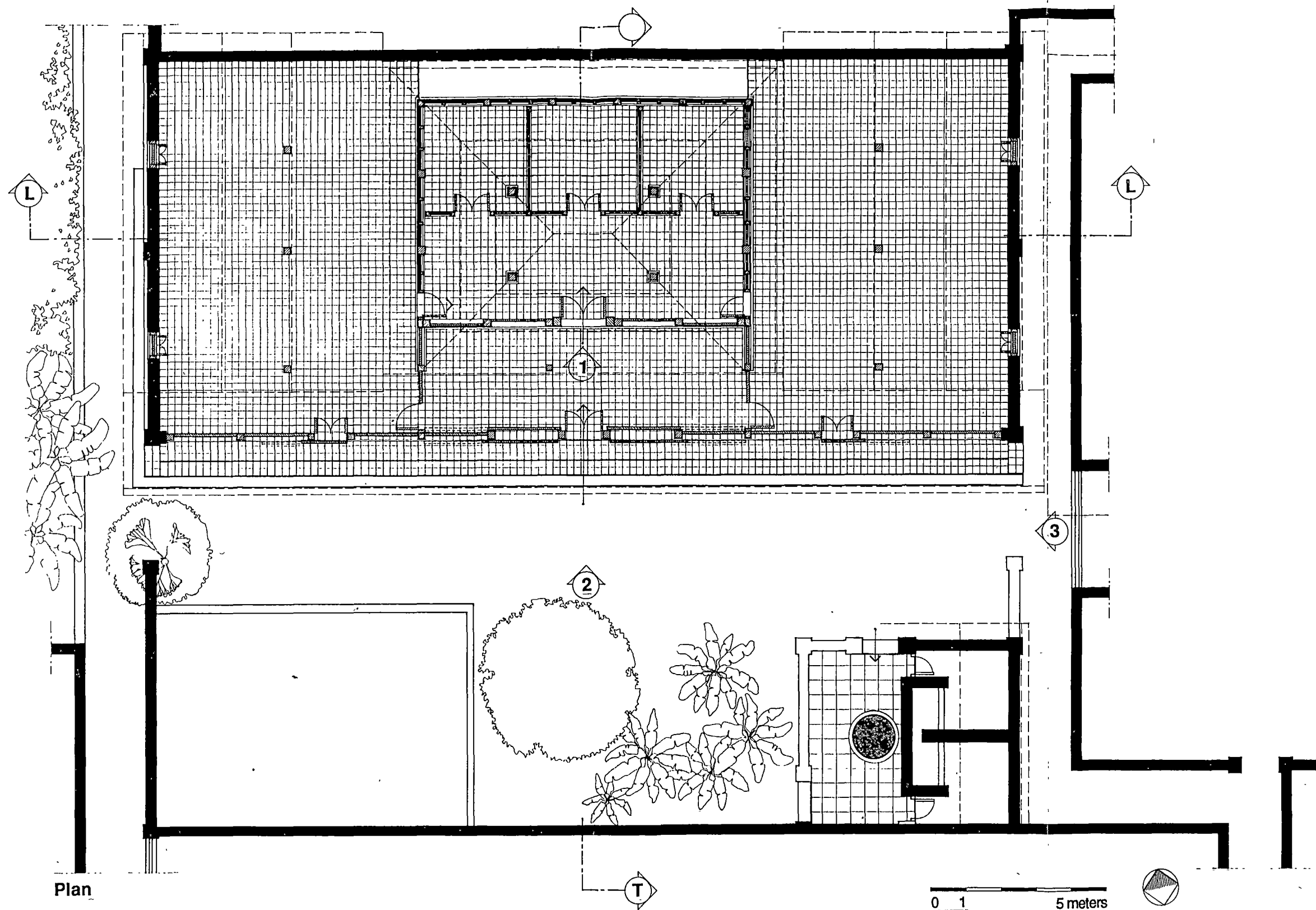


Detail A

0 50 100cm



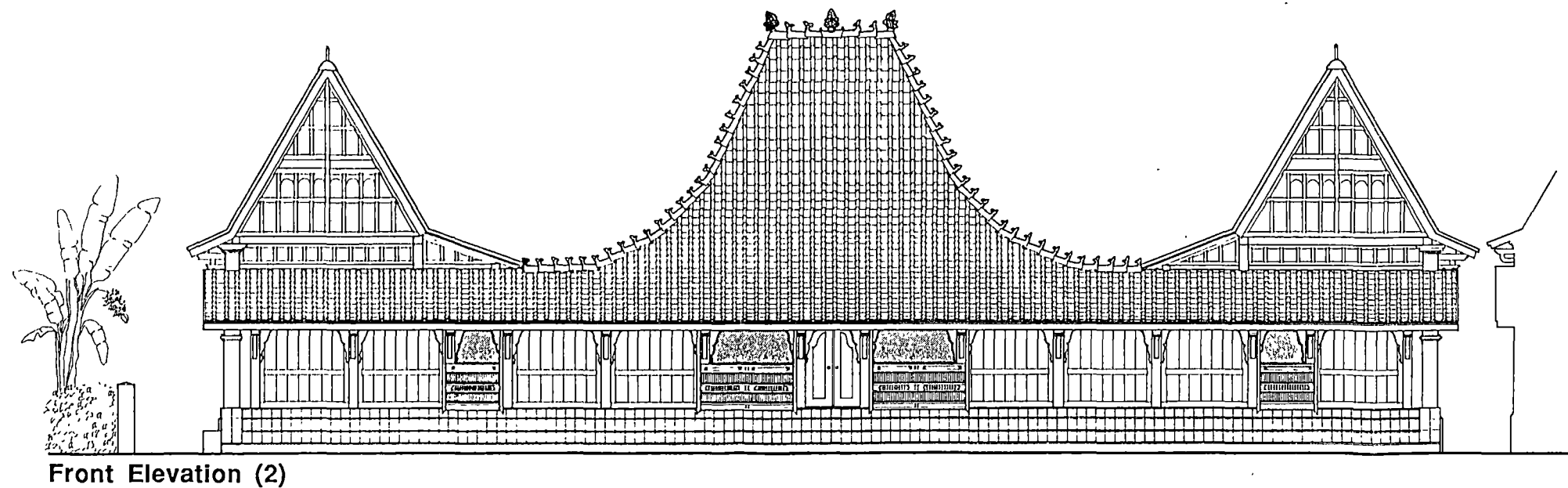
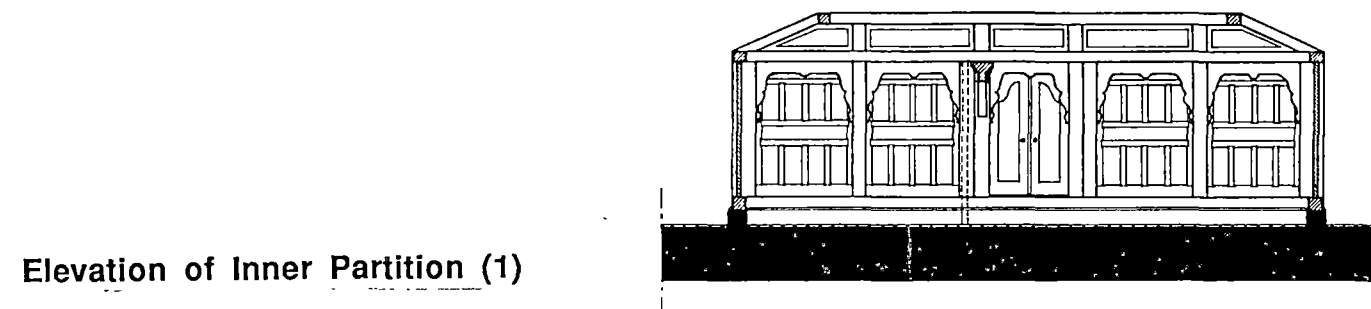
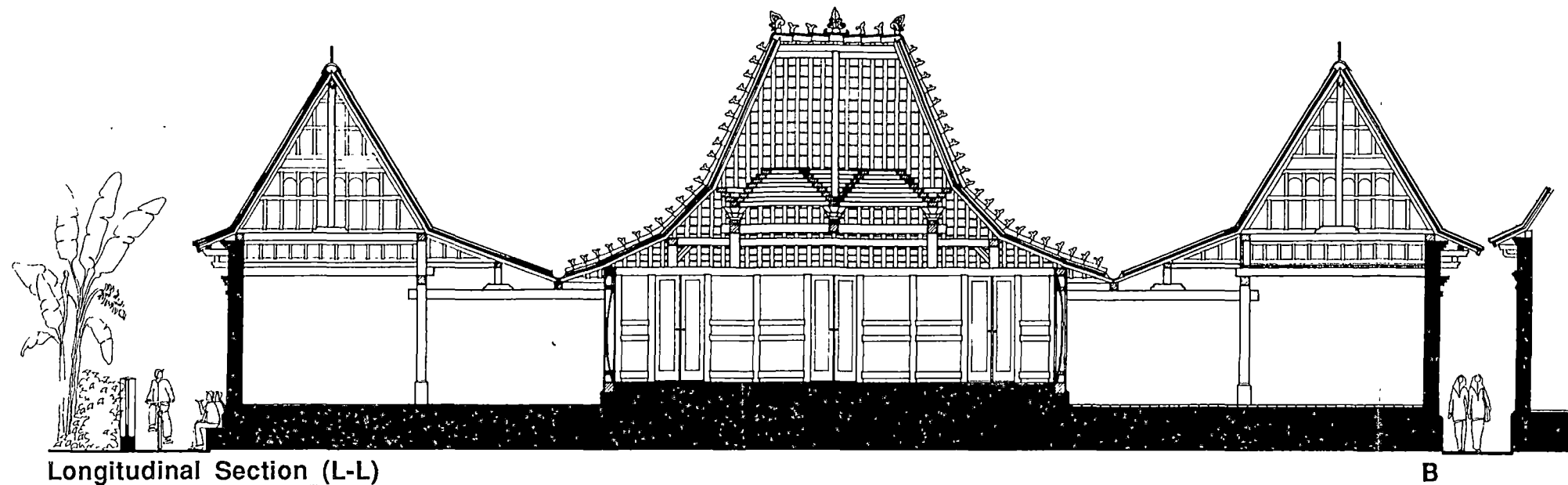
Longitudinal Section (L-L)



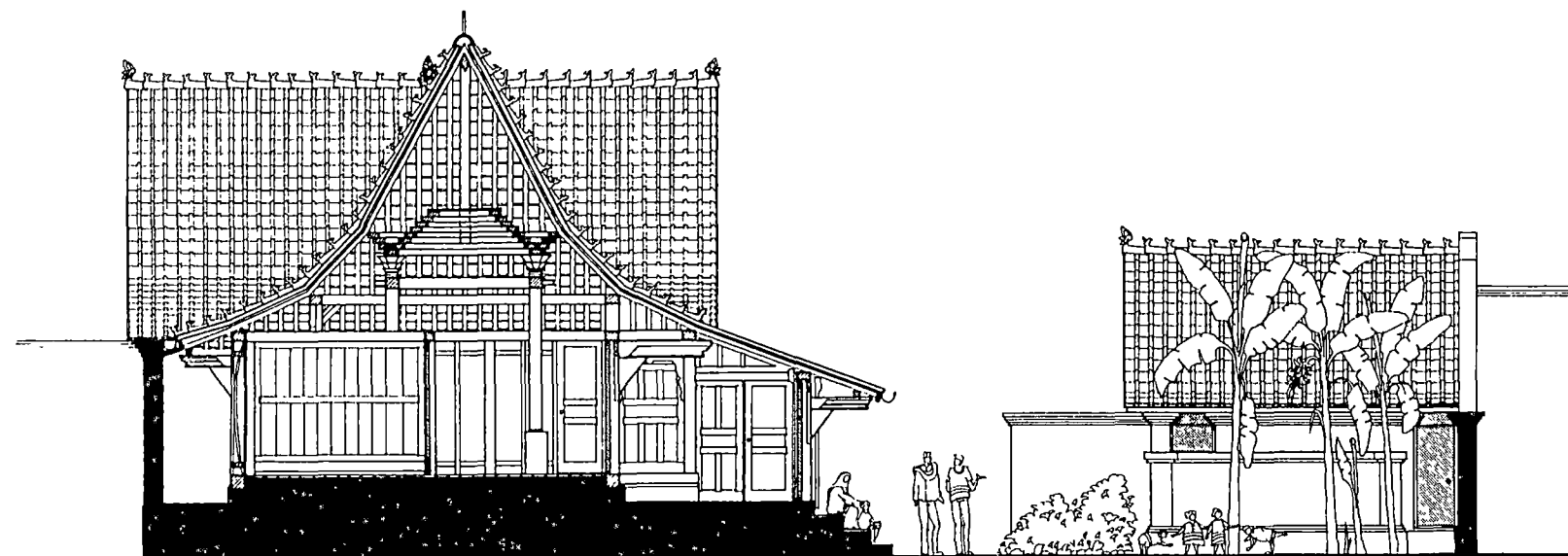
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RESIDENCE OF MR. SAIFUL KAFFI  
Langgardalem 174-5

6A



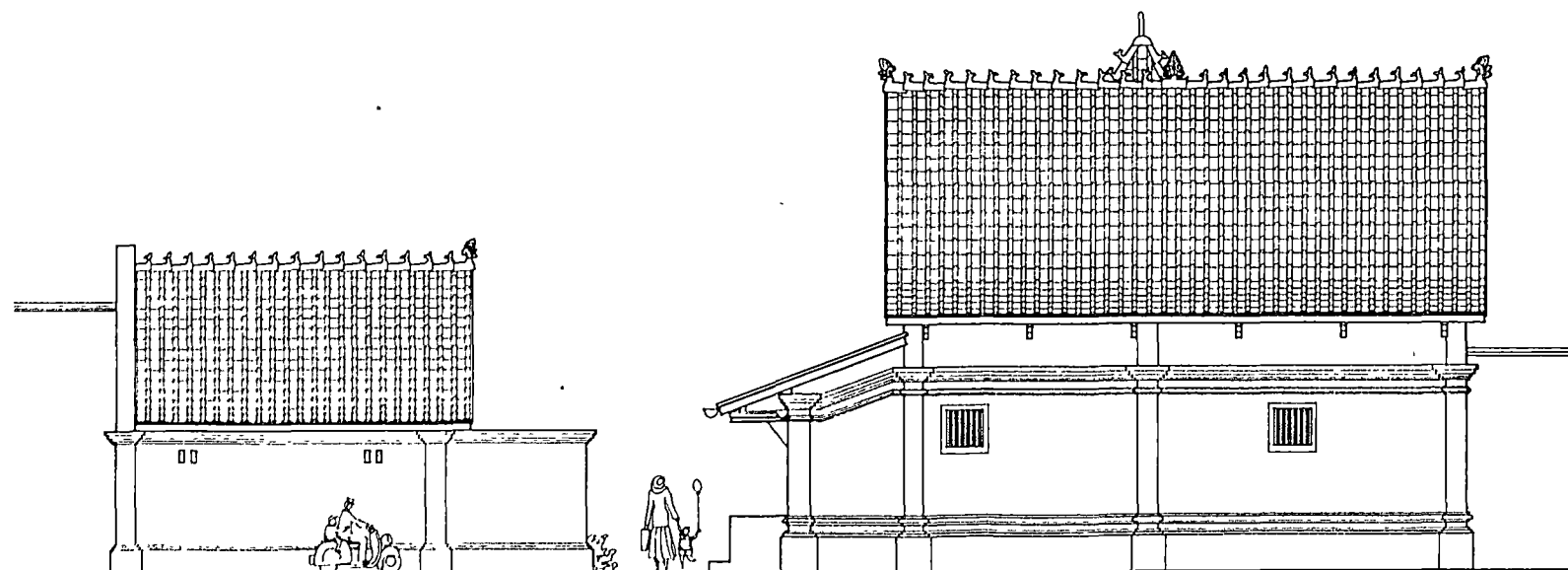




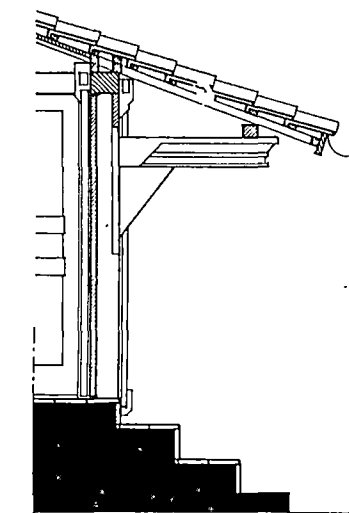
Transversal Section (T-T)

A

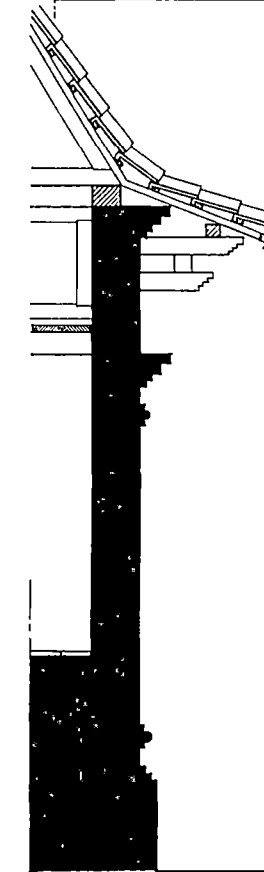
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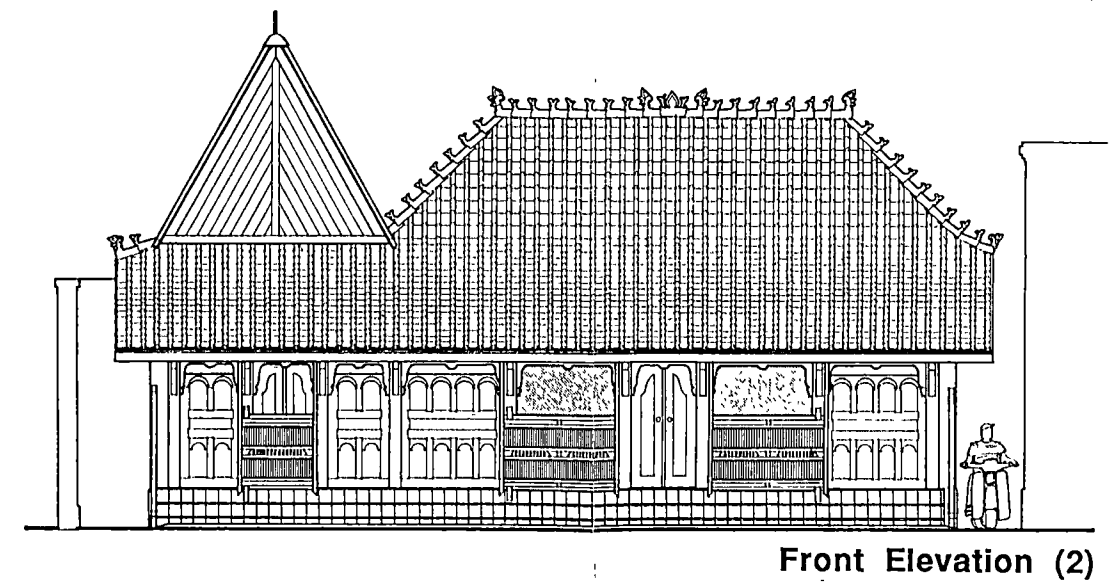
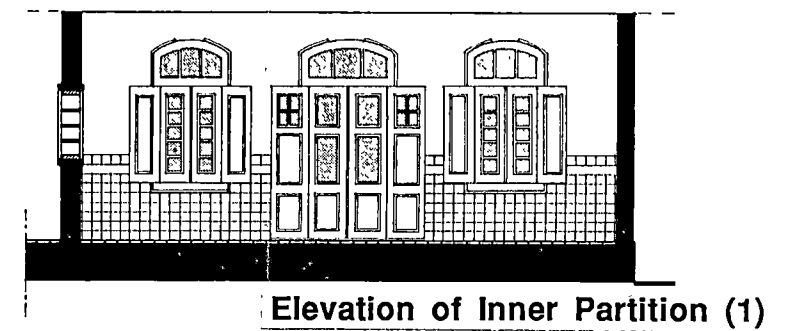
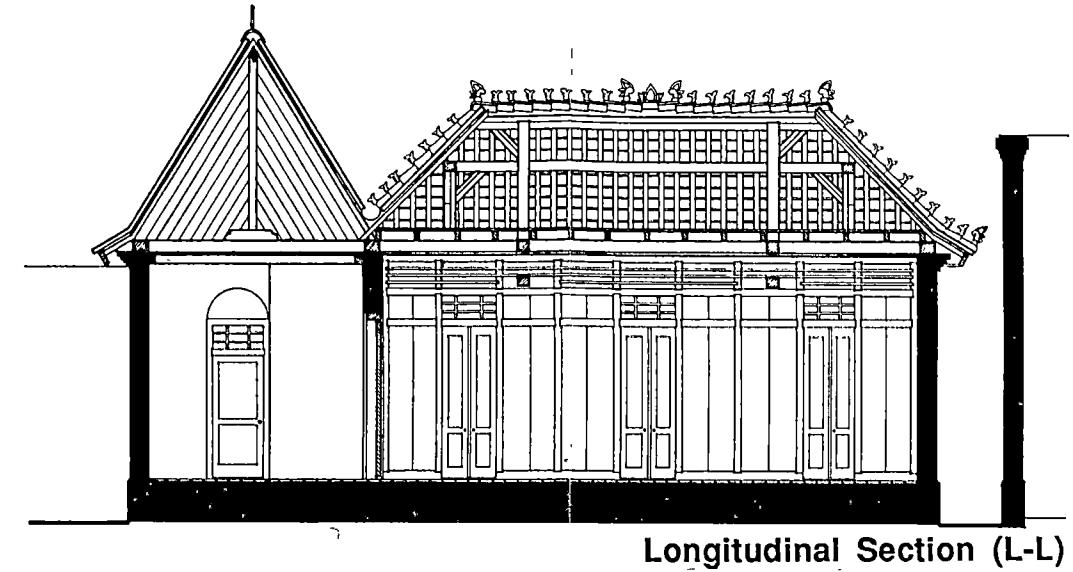
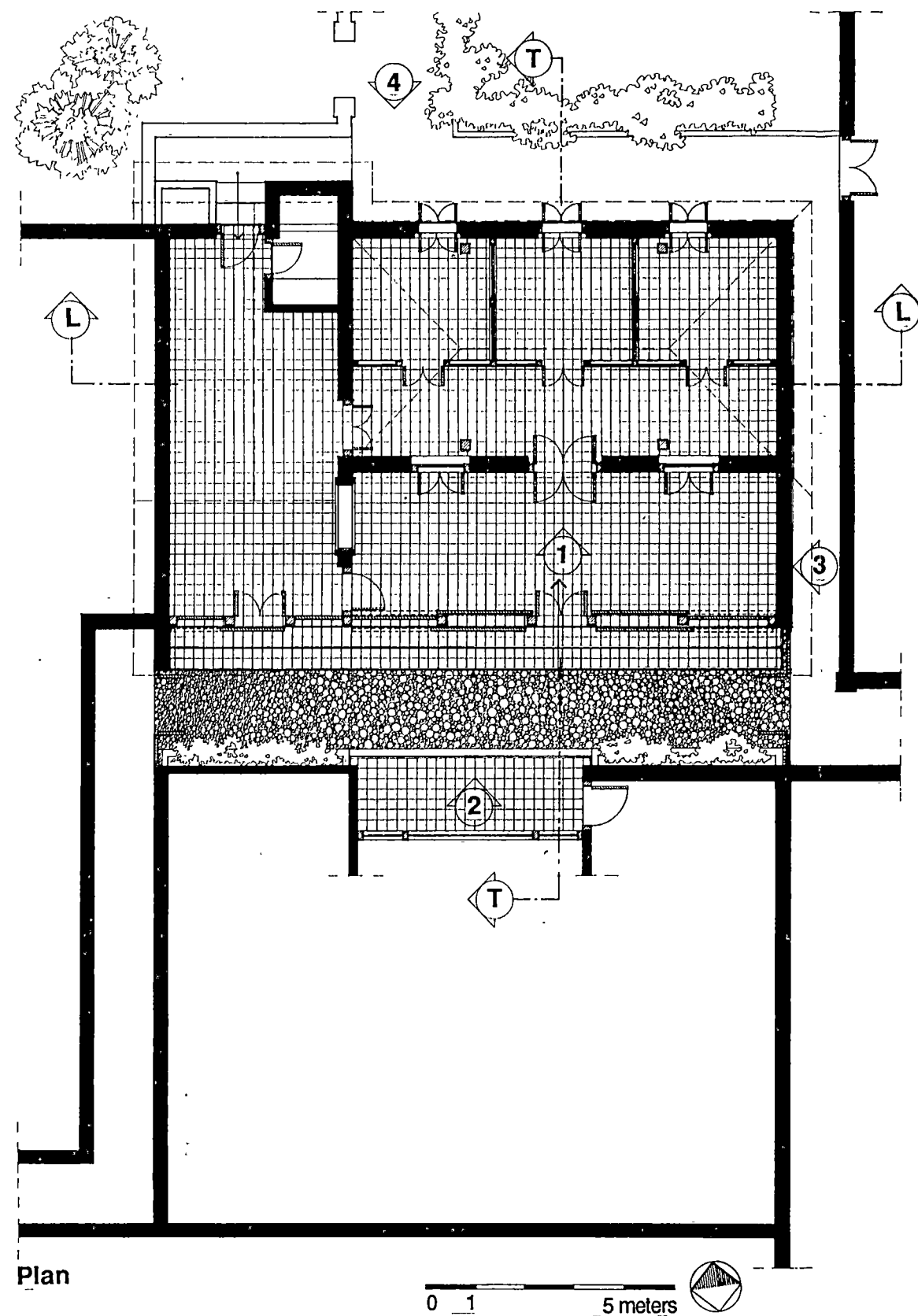
Side Elevation (3)



Detail A



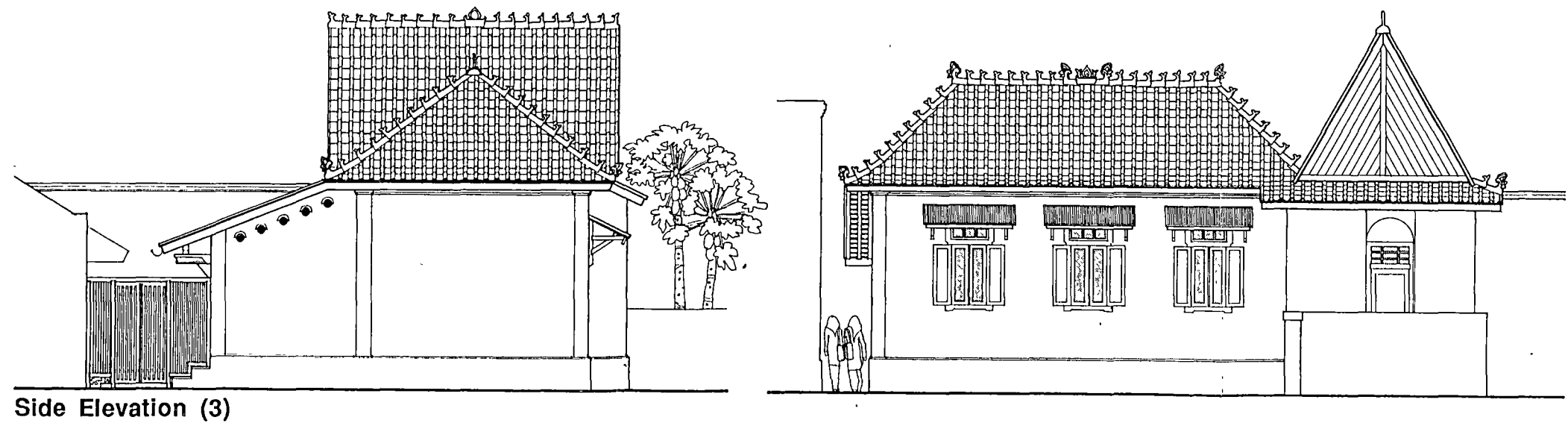
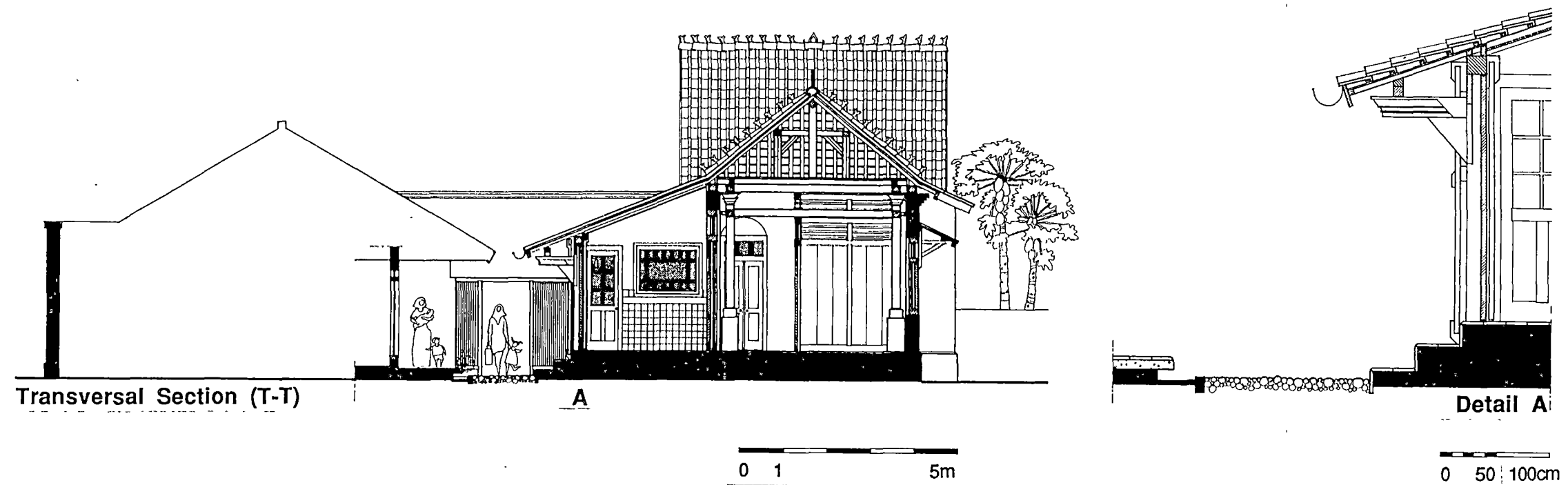
Detail B

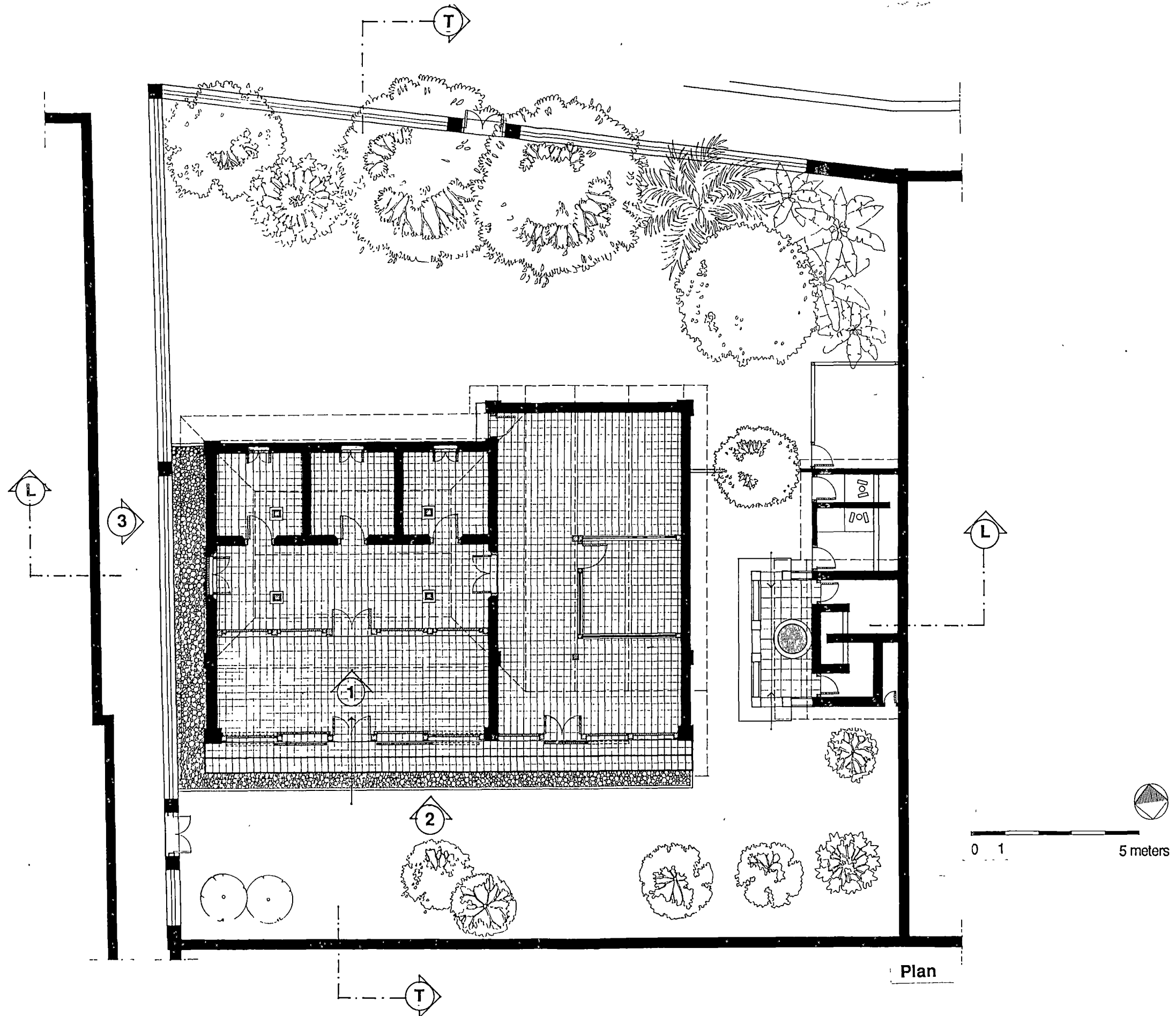


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RESIDENCE OF MR. NAFIAN  
Kauman 59

7A

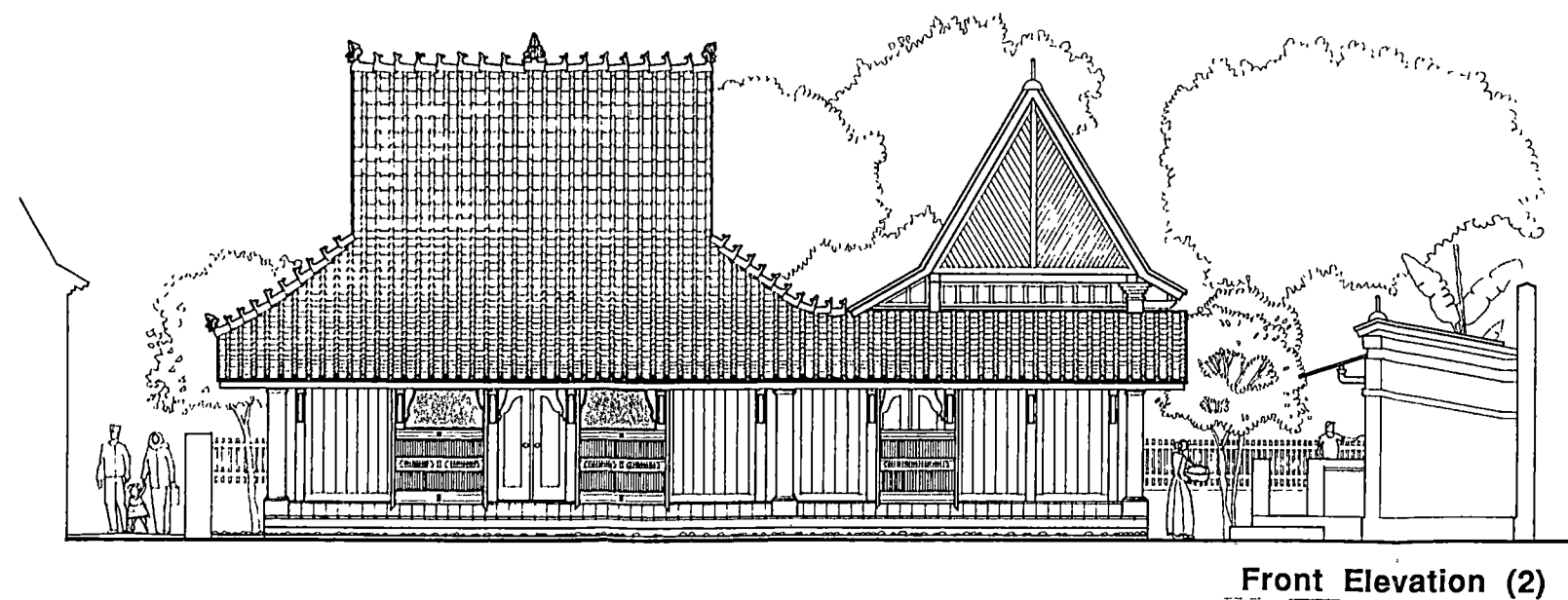
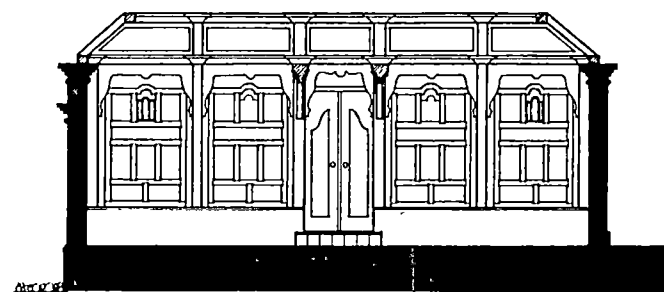
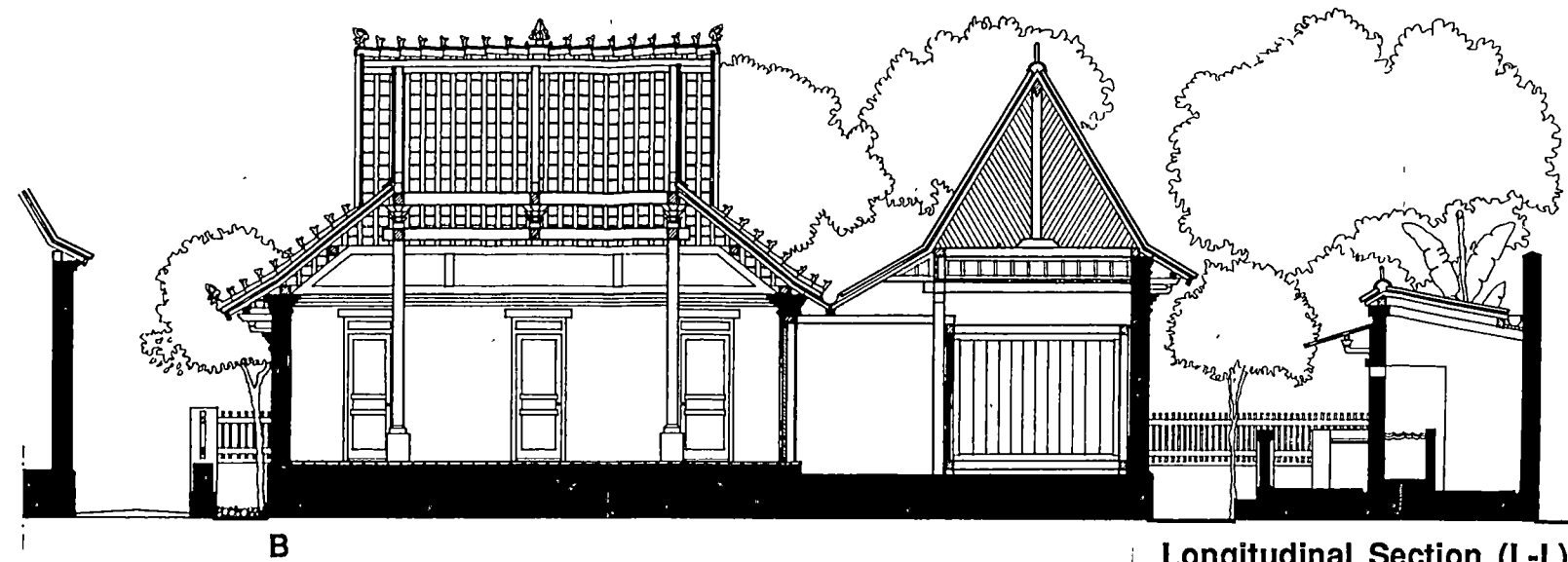


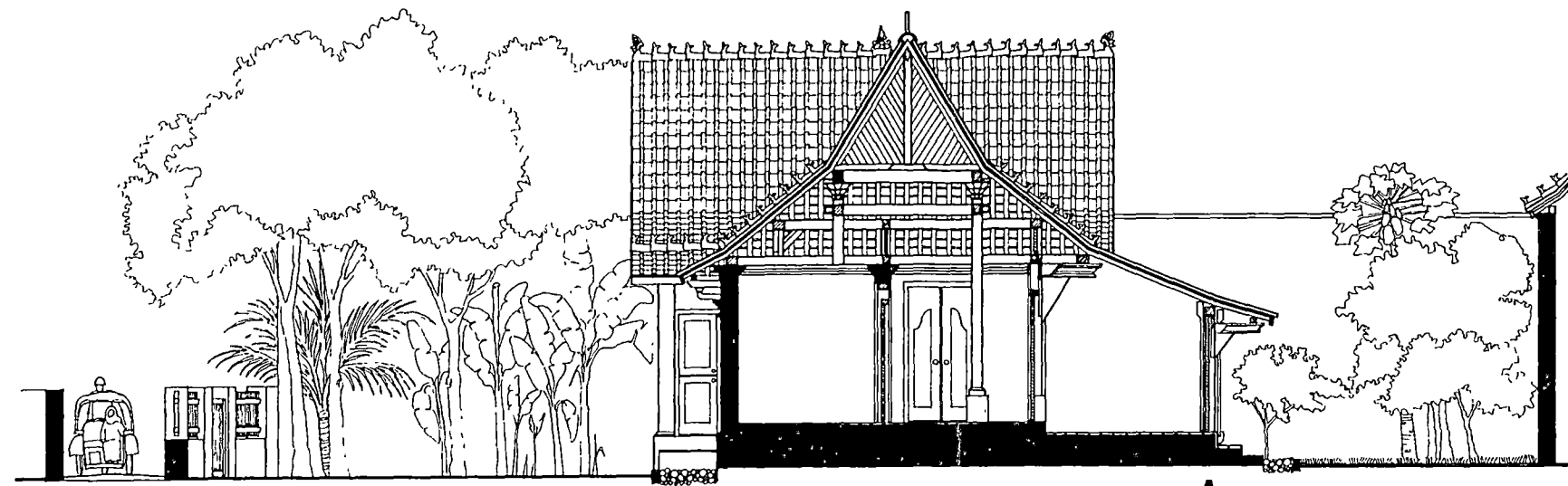


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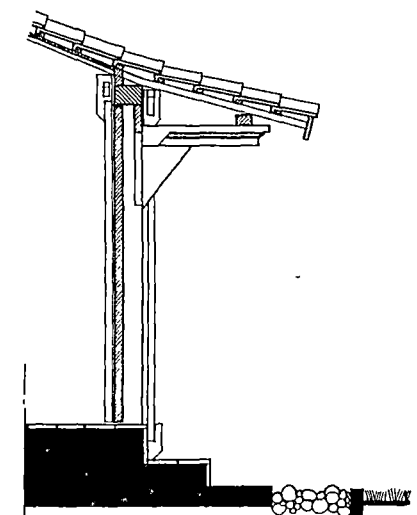
RESIDENCE OF MR. MUSTAFA  
Langgardalem 16B

8A

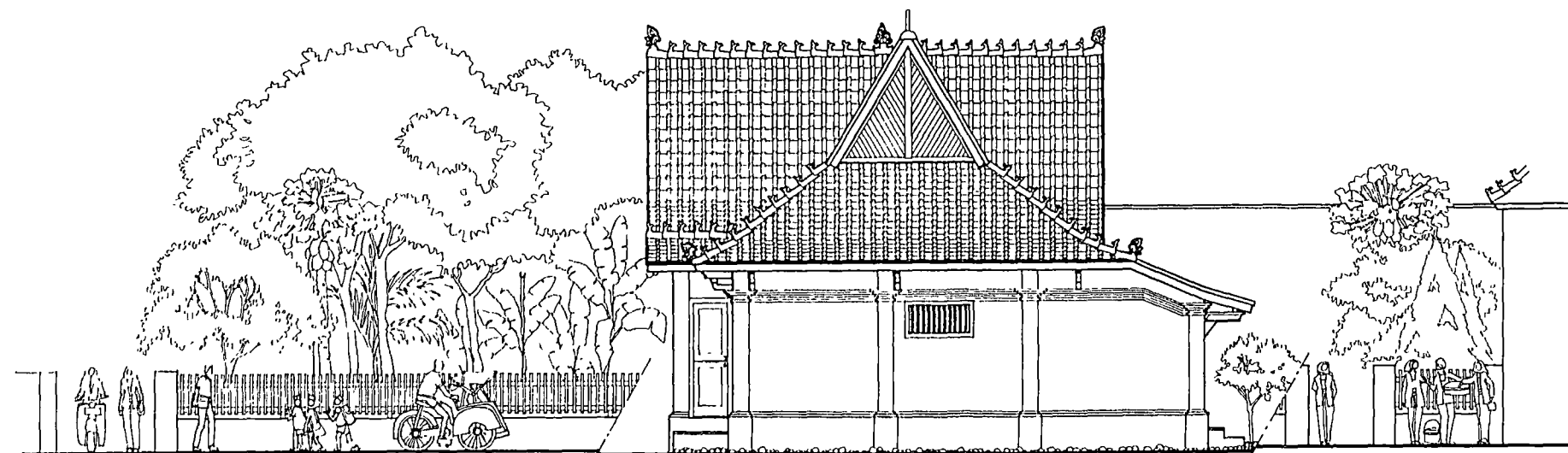




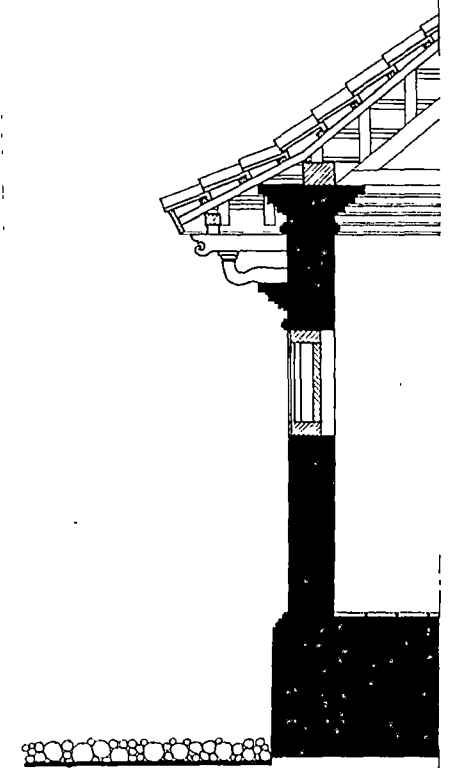
Transversal Section (T-T)



Detail A



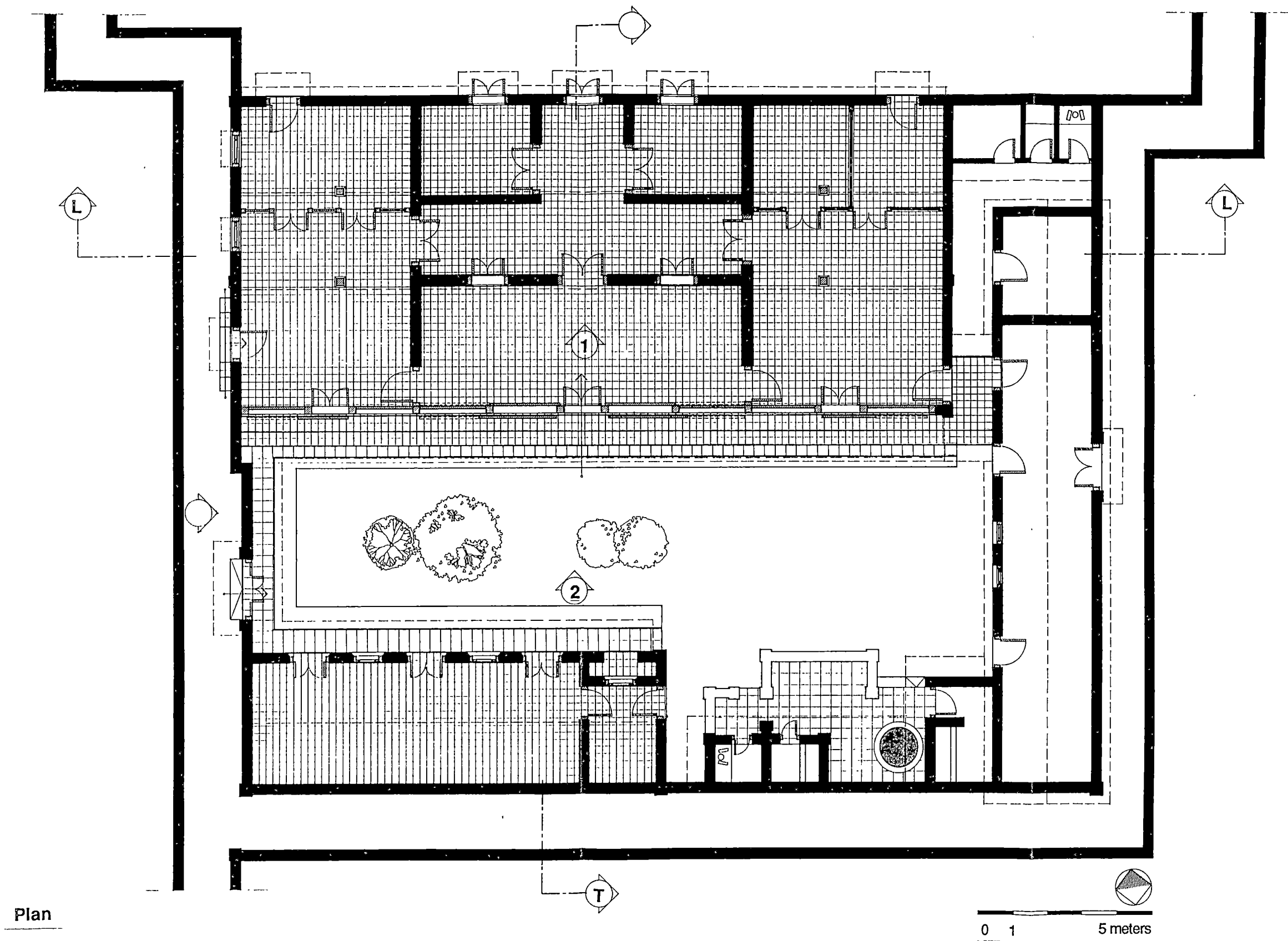
Side Elevation (3)



Detail B

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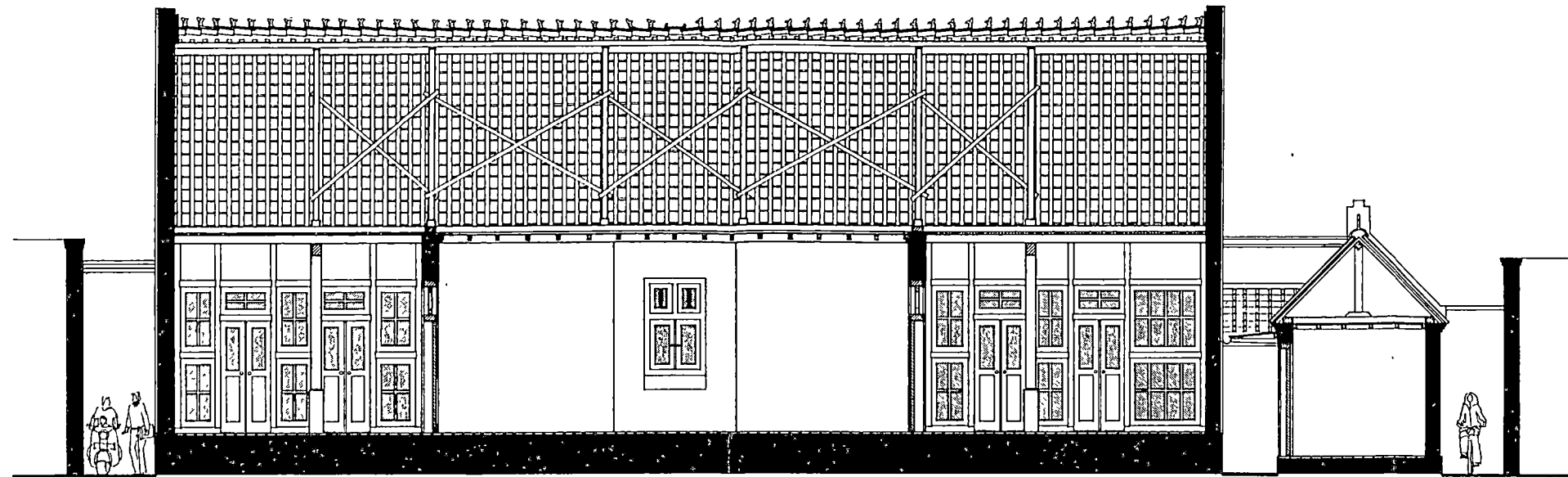
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Plan

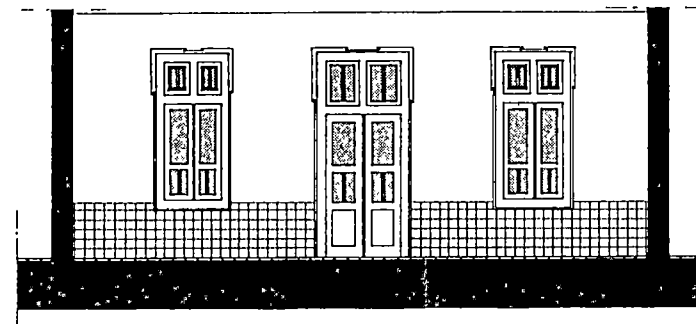
Drawing based on  
field research in  
January-March 1993  
© Ria Wikantari 1994

# RESIDENCE OF MR. MUKAMAL AZ'AD Langgardalem 16

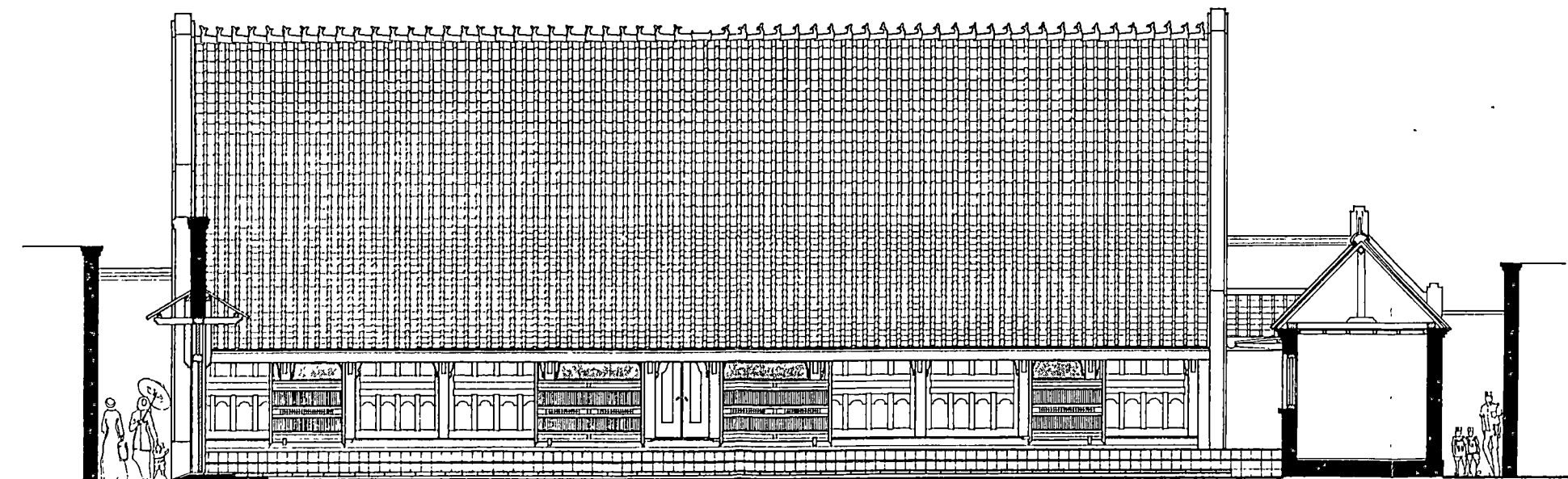


Longitudinal Section (L-L)

0 1 5m

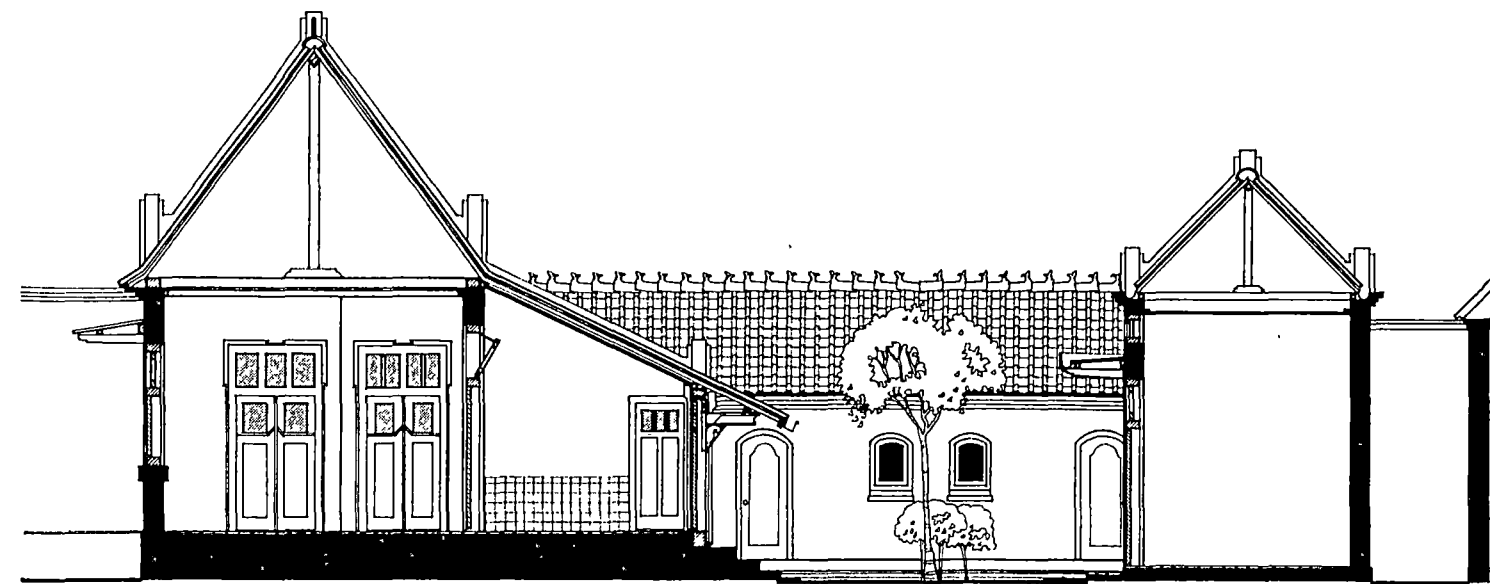


Elevation of Inner Partition (1)



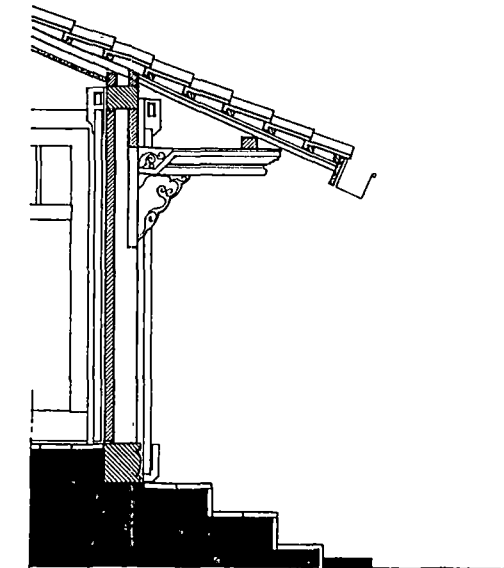
Front Elevation (2)





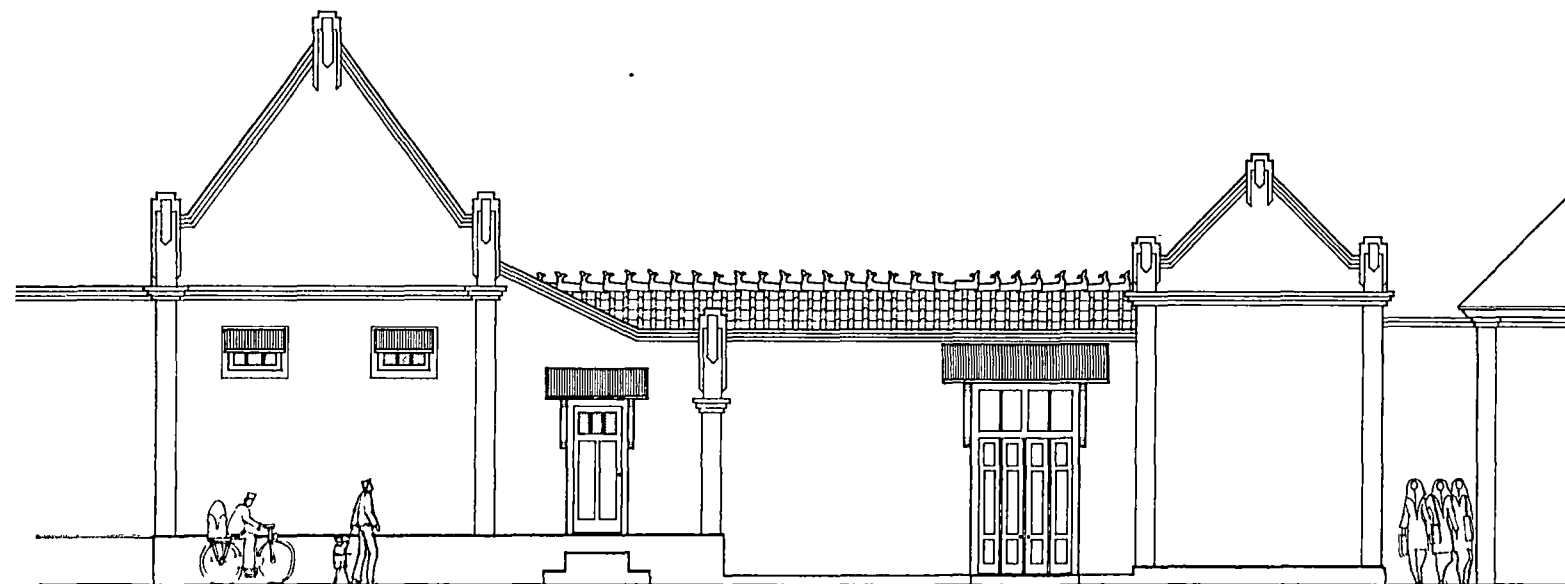
Transversal Section (T-T)

A



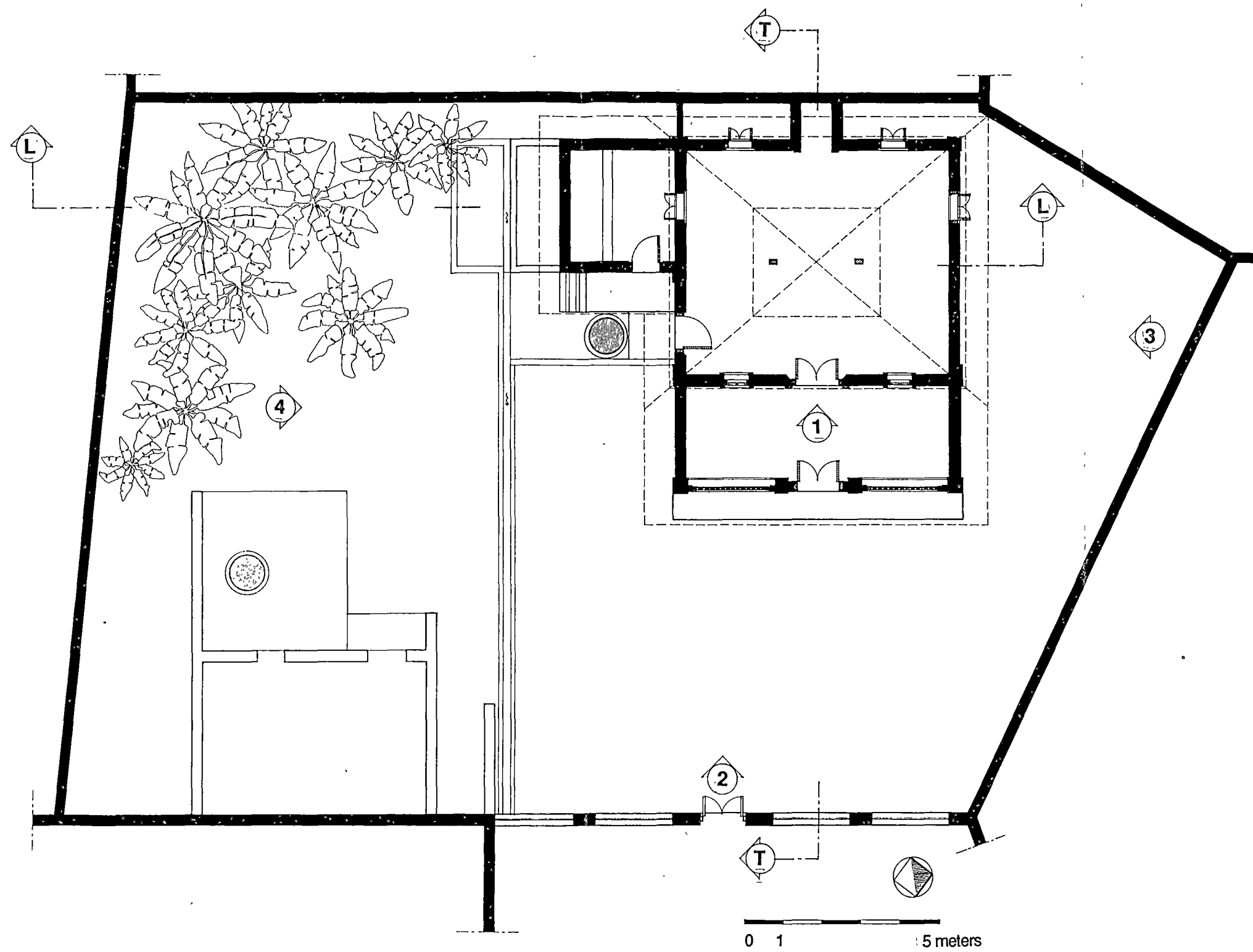
Detail A

0 50 100cm



Side Elevation (3)

0 1 5m

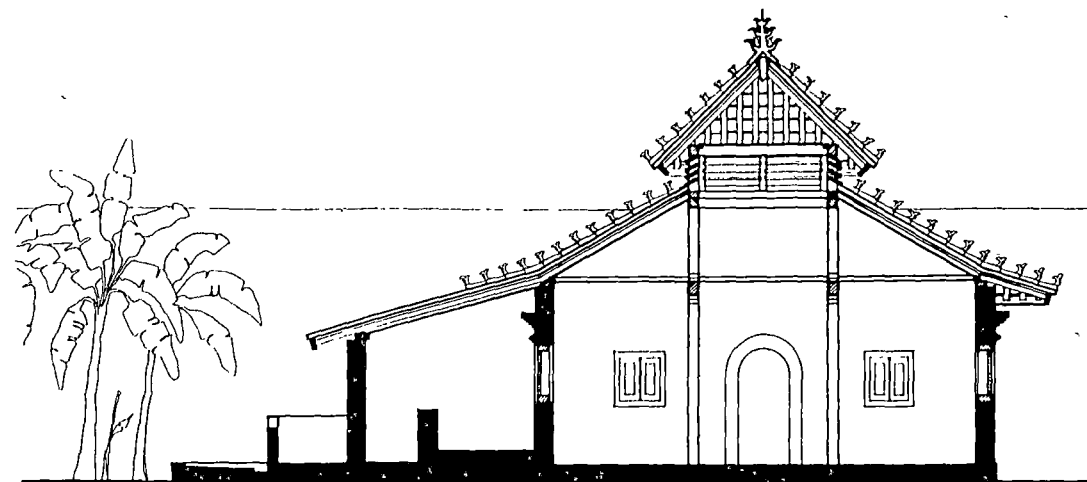


Plan

Drawing based on  
field research in  
January-March 1993  
© Ria Wikantari 1994

MADUREKSO MOSQUE

10A

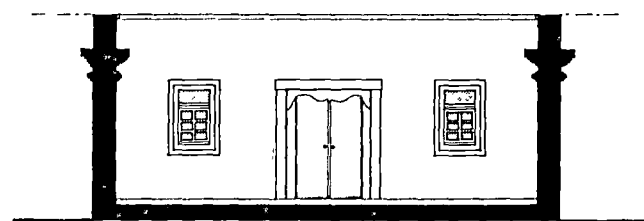


Longitudinal Section (L-L)

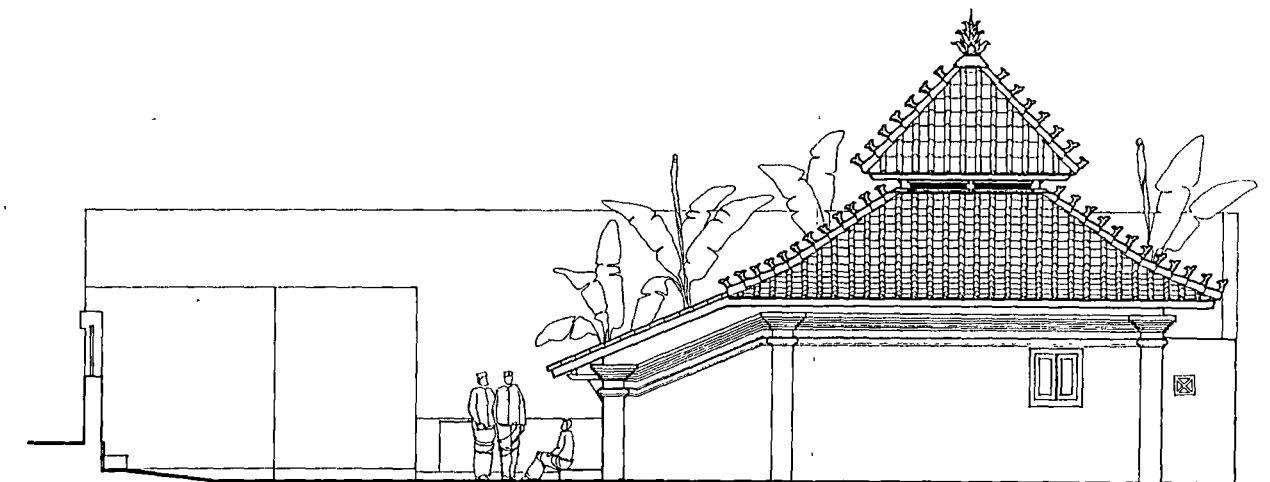
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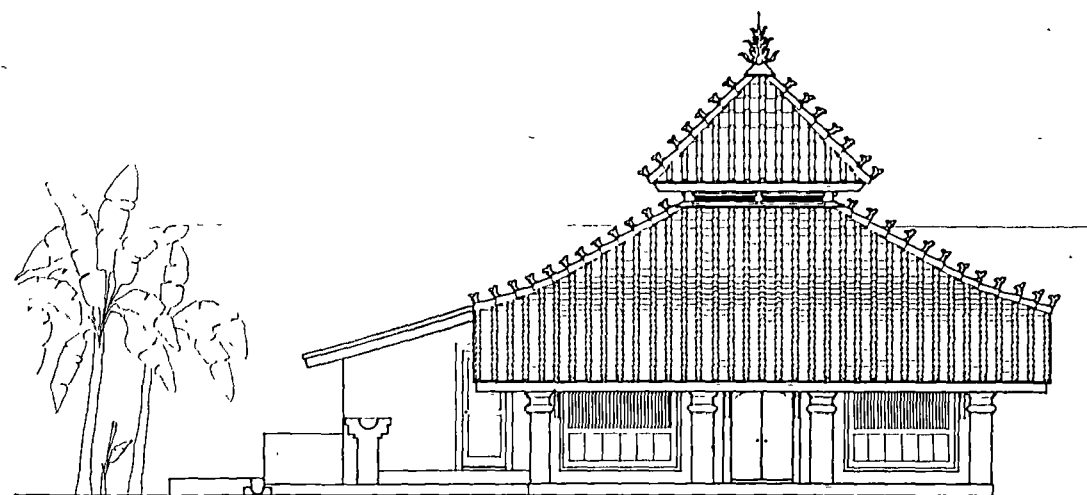
Transversal Section (T-T)



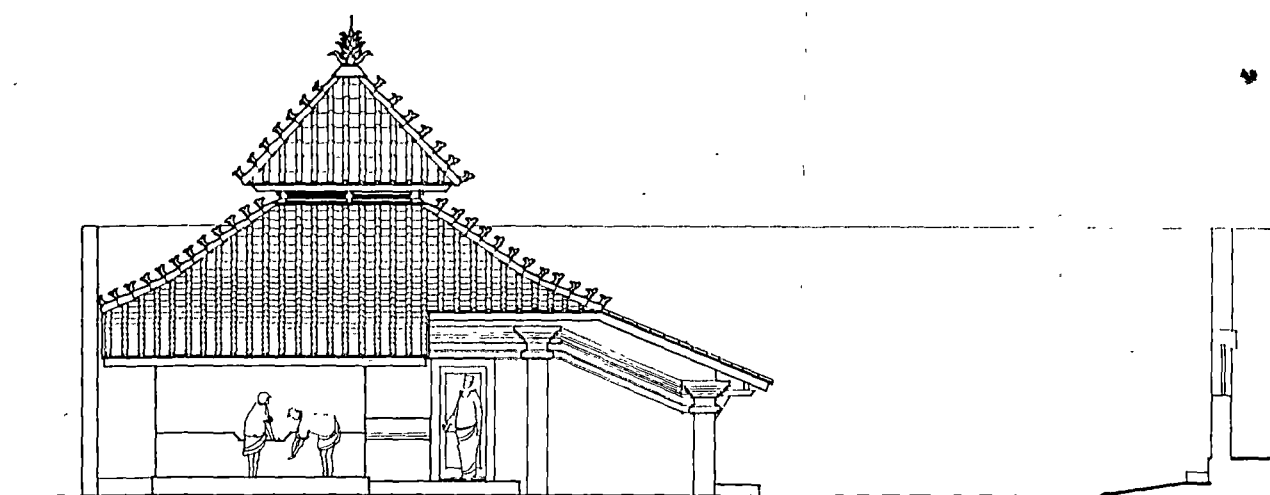
Elevation of Inner Partition (1)



Side Elevation (3)



Front Elevation (2)



Side Elevation (4)

MADUREKSO MOSQUE

10B

## APPENDIX II :

### Economic and Social Background of Kudus

'All fine architectural values are human values, else not valuable. Humane architectural values are life-giving always, never life-taking.'  
Frank Lloyd Wright, *The Living City*, 1958.<sup>6</sup>

#### Economic History

Although Kudus was not directly located on the fifteenth- and sixteenth-century trade route, it had an important role both in the development of the early Islamic communities and in the trading activity of Java. Kudus region was a rich agricultural area with rice and a number of dry-season plantations as the main crops, which were exported through Demak and Jepara. In the late seventeenth century, Kudus was listed as one of the regions supplying products needed by the Dutch, primarily rice and wood.<sup>7</sup> The fact that Kudus is not a harbour town may have assisted the survival of the indigenous traders in the face of European and Chinese competition. The inland location of Kudus, as well as other trading towns like Yogyakarta and Surakarta, may also have resulted in the survival of trade within Java when the inter-island trade passed out of indigenous hands.<sup>8</sup>

The development of the cultural and socio-economic activities in Kudus should be seen in the context of Java, primarily the north coastal regions in the course of the fifteenth century and afterwards. In this context, the spread of Islam, the trade in agricultural products, and the continuous contact with foreign Muslim traders appear to have been prominent.

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<sup>6</sup> Frank Lloyd Wright, *The Living City*, New American Library, New York, 1958, p. 116.

<sup>7</sup> B. Schrieke, *Rulers and Realms in Early Java, Indonesian Sociological Studies, Selected Writings of B. Schrieke Part Two*, W. van Hoeve, the Hague and Bandung, 1957, p. 160.

<sup>8</sup> Lance Castles, *Religion, Politics, and Economic Behaviour in Java : the Kudus Cigarette Industry*, Cultural Report Series No.15, Southeast Asia Studies, Yale University, New Haven, Detroit, 1967, p. 49.

The Javanese were converted to Islam through several channels, including trade, marriage, bureaucracy, education, mysticism, and art.<sup>9</sup> Merchantile communities of foreign Muslims in harbour towns of the north coast gradually established relationships with local communities, particularly the Javanese middle-class families. Muslim traders usually settled in particular quarters, centered around mosques of the towns, forming Islamic-oriented communities of middle-class religious teachers, merchants and artisans. Such quarters were frequently referred to as *kauman*, which means a place of Muslim religious community, *pekojan*, which means a place of Muslim traders coming from Persia, India, Arabia, or *pecinan*, which means a place of Chinese traders.<sup>10</sup> A small group of farmers lived in town, who were mostly absentee agricultural landowners, while the majority lived in agricultural villages in the vicinity of the town.

Mixed marriages were common in such a foreign settlement, as foreign traders seldom brought women of their own race on their long voyages to Java.<sup>11</sup> Such a marriage connection reinforced intercultural relations based on common business interests and religious mission. Marriage ties between foreign Muslim traders and families of the local nobility apparently resulted in advantages for both sides. On the one side, the traders occupied a high economic rank, so that the local nobility were favourably disposed towards a marriage between their daughters and the merchants to increase their economic status. On the other, due to the local tradition of considering kings as God's representatives in the world, the conversion of the kings and other nobles to Islam was usually followed by conversion of the local people, accelerating the spread of Islam.<sup>12</sup> After marriage to royal Javanese, the Muslim traders were often included in the royal system as harbour-masters, arbitrators, or in other bureaucratic positions. They were also given royal titles, elevating their social rank. Royal families also benefitted; in the fourteenth, fifteenth and sixteenth centuries, the key to sea-faring and sea-trade connections lay largely with the Muslim trader groups.

<sup>9</sup> Uka Tjandrasasmita, 'The Introduction of Islam and the Growth of Moslem Coastal Cities in Indonesian Archipelago', in *Dynamics of Indonesian History*, eds. Haryati Soebadio & Carine A. du Marchie Sarvaas, North Holland, Amsterdam, 1978, pp. 159-160.

<sup>10</sup> The presence of foreigners, both Chinese and Indians, in Javanese culture, was already noted in the fourteenth-century Majapahit. In the fifteenth and sixteenth centuries, most harbour towns of Java's north coast contained such merchantile middle class communities of mixed ancestry, dwelling in quarters of their own and maintaining friendly relations among themselves, with the Javanese court, and with the authorities of their homelands. See : H. J. de Graaf & Th. G. Th. Pigeaud, *Chinese Moslems in Java in the Fifteenth and Sixteenth Centuries*, ed. M. C. Ricklefs, Monash University, Clayton, Vic., 1984, pp. 171-2.

<sup>11</sup> Graaf & Pigeaud, 1984, op.cit., pp. 172-3.

<sup>12</sup> The use of titles 'panembahan', 'susuhunan', 'sunan' and 'pangeran' was an acknowledgement of the divine power of the kings. See : Tjandrasasmita, 1978, op.cit., p. 150.

Marriage ties with the traders provided access for the aristocratic group for exporting their commodities.<sup>13</sup>

As agriculture was the prime means of life of the Javanese people, trading in agricultural products was the main socio-economic activity of the coastal communities of Java in the fifteenth and sixteenth centuries. Rice was the main object of trading, serving as a medium of exchange to obtain spices from the Moluccas and goods from foreigners. Trading activity provided direct contact between Javanese traders and proselytising Muslim traders; it therefore became an indissoluble part of the spread of Islam. Islam soon reached the royal courts, because foreign Muslim traders had to have permission to trade from local rulers.<sup>14</sup> Once Muslim communities had been established, the shipping along the trade routes was also used by pilgrims for pilgrimage to Mecca, providing wider direct contact among Muslim traders.<sup>15</sup>

Tobacco was added to rice as an important trading commodity of the Kudus region in the seventeenth century. As the region grew little tobacco, Kudus obtained tobacco from the fertile inland regions of Java, particularly the Kedu region whose commercial connection with Kudus, according to a local legend, goes back to Sunan Kudus.<sup>16</sup> Tobacco, which was peculiar to the Americas, was unknown in the Indonesian archipelago until the coming of European voyages. As early as 1624, however, it had been smoked at the Mataram court. During the Dutch colonial period, in the late nineteenth century, cigar leaf became a leading product of Central Java, East Java, and North Sumatra for export to Europe.<sup>17</sup>

Before the rise of clove-cigarette industry in the late nineteenth century, the prosperity of Kudus developed primarily from small-scale trade in agricultural products. Starting from the early seventeenth century and reaching a peak in the nineteenth century, Kudus was apparently a centre of a peculiar kind of trade in which indigenous merchants began travelling in their youth, often attending religious school while trading. The trading area was other regions within Java, while the main articles were dry-season agricultural products (*palawija*). Transactions were small,

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<sup>13</sup> Tjandrasmita, 1978, op.cit., pp. 149-150.

<sup>14</sup> Schrieke, 1957, op.cit., p. 237.

<sup>15</sup> Alisa G. Thomson Zainu'ddin, *A Short History of Indonesia*, 2nd ed., Cassell Australia, Stanmore, NSW, 1980, p. 60.

<sup>16</sup> According to the legend, in a meeting held at Demak court, a conflict occurred between Sunan Kudus and the ruler of Kedu. The conflict was continued in a cock-fight, in which, upon his victory, Sunan Kudus stated that the wealth of Kedu region would be owned by Kudus people. See : Suharso, *Sejarah Industri Rokok Kretek Kudus : Survivalisme dalam Jeratan Struktur* (History of the Clove Cigarette Industry of Kudus), a paper presented at the 5th National Seminar on History held by Department of Education and Culture, Semarang, August 1990, p. 19; also : Castles, op.cit., p. 49.

<sup>17</sup> Castles, op.cit., p. 26.

capitalisation was slight, and the traders traveled with their goods. They spent most of their lives travelling and peddling, returning to Kudus only at intervals and, perhaps finally, to retire.<sup>18</sup>

The trading merchandise then developed to include craft products, such as *batik* and *songket*.<sup>19</sup> From a home-based craft, the cloth trade expanded, leading to the emergence of middle-class people who became strong investors. These Kudus middle-class Muslim traders had extensive relations with traders who were usually also devout Muslims from *kauman* quarters of other villages and towns, mostly in the northern coastal area of Central Java.

Consistent with the economic aspect of this trade, they also operated within a brotherhood of devout Muslims. Islamic ethics foster a spirit of devoutness and entrepreneurship. The more successful a person, the more one can provide alms.<sup>20</sup> Muslim traders or artisans traditionally worked to obtain adequate funds for making a pilgrimage to Mecca and to provide capital to extend the business.<sup>21</sup> After returning home, they became wholesalers or large-scale merchants (*saudagars*).<sup>22</sup>

At the peak of their success, Kudus traders eschewed luxury for a simple, devout lifestyle, often dedicating themselves to lay preaching. They built their houses based on a high Javanese architectural tradition practised by the aristocrats and high-ranking civil servants. However, in order to distinguish themselves from a Javanese elite class who built vast individual complexes, Kudus traders built quite simple houses. These houses, although modest in scale and form, were built to express the owners' wealth and high rank in the community. Almost all the wooden parts, architectural, structural, and decorative elements, were delicately carved.

Tobacco trading resulted in great profit to Kudus merchants during the nineteenth century. This trading, however, requires specific knowledge and skill, as tobacco varies greatly in price according to locality of production, method of curing, and length of storage. Kudus merchants used to buy up tobacco, store it as its value increased with age, and sell it at favourable times after the value appreciated. They

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<sup>18</sup> *ibid.*, pp. 48-9.

<sup>19</sup> *Batik* is a luxury textile printed with intricate motifs through a particular process in which parts not to be dyed are covered with wax. *Songket* is a textile embroidered with gold and silver threads.

<sup>20</sup> Suharso, *op.cit.*, p. 20.

<sup>21</sup> In the course of about three and a half centuries, from the late sixteenth until the mid twentieth century, successful traders of Kudus, as of other towns, usually undertook a *haj* pilgrimage to Mecca and became *haji* (male) or *hajjah* (female). The pilgrimage increased noticeably with the opening of Suez Canal in 1869.

<sup>22</sup> Suharso, *op.cit.*, p. 7.

built up stocks of money and other fairly liquid assets to provide capital. A kind of exploitation of peasantry by debt through the *ijon* system, moreover, seems to have made the tobacco trade most profitable. In this system, creditors bought at a much reduced price still unripe crop, and sold it at a much higher price after harvesting.<sup>23</sup>

Reserves of capital were built up in the town through trading, so that the emergence of the clove cigarette (*kretek*) industry, which was much less exhausting than the trading of agricultural crop, had apparently been the most favourable means of employing capital. Both the spirit of entrepreneurship and accumulation of capital from the small-scale tobacco trade led to the development of the industry. The excess supply of labourers from the vicinity of Kudus appears to have accelerated the industry's growth.<sup>24</sup> The bulk of clove cigarette industry in Indonesia has since been in Kudus and its vicinity on Central Java and in the Brantas valley on East Java.

The identity of the developer of the clove cigarette, however, is still disputed. One opinion claims that the recipe for clove cigarettes was invented by Ngasirah, who after the death of her husband, a horse-cart driver, tried to survive by selling this particular kind of cigarette among her late husband's friends. The cigarette was rolled by the smokers in maize-sheath or other vegetable membranes. She met Nitisemito, also a horse-cart driver, who offered additional capital. The business developed, and Nitisemito built his first factory in 1908.<sup>25</sup> Another opinion claims that the clove-cigarette trading in Kudus may have been started by Haji Jamhari, who had used clove oil to relieve him from the pain of asthma. When the pain became worse, he chewed the clove. As he thought inhaling the smoke of the clove would be more effective, he mixed minced clove with tobacco for his cigarette. When he recovered from the asthma, he started to trade in the clove-cigarette. The absence of patent legislation resulted in the opportunities for other traders to produce and trade clove cigarettes, so that after the death of Haji Jamhari in 1890 the trading activity expanded to cover the whole Kudus region.<sup>26</sup>

The combination of tobacco and clove cigarettes became the main trading commodity in Kudus in the early twentieth century, after the establishment of the clove cigarette industry. Industrialisation of clove cigarette production developed from the former household industry. Many West Kudus residents became involved in these

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<sup>23</sup> Castles, op.cit., p. 49.

<sup>24</sup> *ibid.*, p. 45.

<sup>25</sup> Suharso, op.cit., p. 7; also interview with Mr. Afif Masluri, the Director of Kretek Museum, 21 January 1993.

<sup>26</sup> Amen Budiman & Onghokkam, *Rokok Kretek : Lintasan Sejarah dan Artinya bagi Pembangunan Bangsa dan Negara*, Djarum Kudus, Kudus, 1987.



activities, becoming small-scale retailers who had tobacco and cigarette shops as part of their house. A few became wholesale traders owning large tobacco warehouses or clove cigarette factories.

Since the revolution of Indonesian independence in the mid 1940's, most of the West Kudus traders have declined economically. Their factories were closed, their traditional houses have been dilapidated and their tobacco warehouses have been left vacant. In some cases, family disputes over inheritance may have diminished their fortunes. However, according to Castles, more often the economic decline may have been due to a failure to adapt to the unstable conditions of the post-revolutionary period, together with the apparent decrease of the entrepreneurial spirit.<sup>27</sup> The enforcement of a national taxation system for commercial and industrial activities, in addition, may have led to greater economic pressures.

A few clove cigarette manufactures have survived in East Kudus and grown larger, even though the owners have changed. People of West Kudus have relied on small-scale businesses, such as tailoring, running small shops or food stalls, and trading goods at town markets, or on small-scale home-industries that produce embroidery, traditional foods and snacks, leather goods, and traditional medicines.

The development of a textile industry in East Kudus in the 1970's encouraged the growth of the embroidery and ready-made clothing industry in the community of West Kudus. Production now includes a variety of Moslem and ordinary clothing and uniforms. Some businesses specialise in production, marketing, or sale of the finished product, while others perform all of these functions.

## **Social Structure**

The people of Kudus are North Javanese who have a clear notion of a distinct coastal culture called the Pasisir culture. Puritan Islam dominates the religious and cultural life of the people in the Pasisir communities and a four-century old literary tradition also shows a strong Moslem character.<sup>28</sup> This resulted from the spread of Islam through missionary activities during the fifteenth and sixteenth centuries.

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<sup>27</sup> Castles, op.cit., pp. 56-8.

<sup>28</sup> Koentjaraningrat, *Javanese Culture*, Institute of Southeast Asian Studies, Oxford University Press, Singapore, 1990, p. 21.

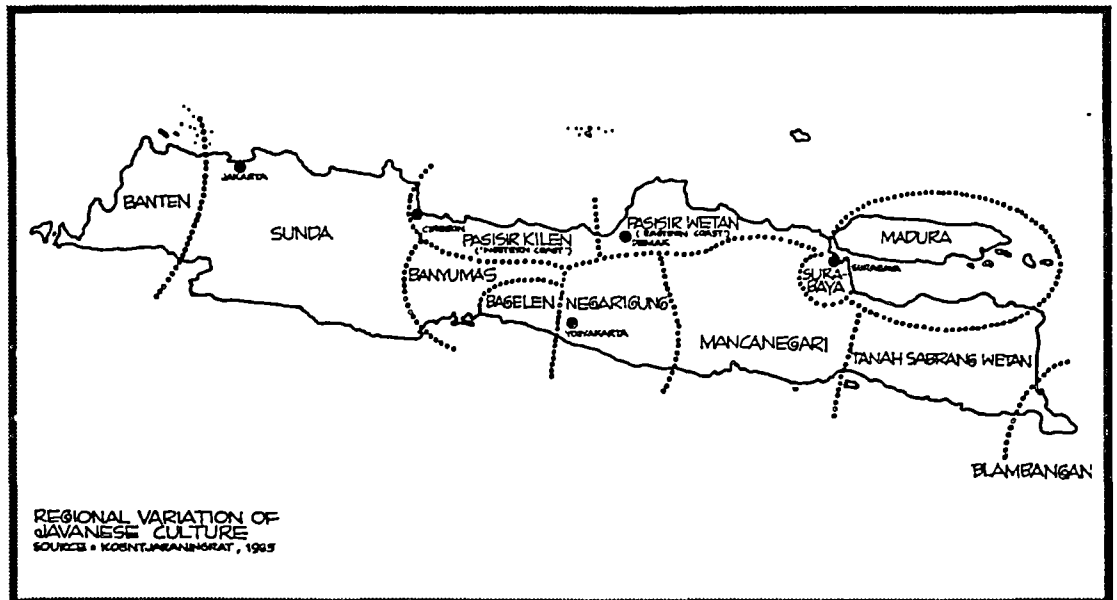


Fig. II.1 Regional variation of Javanese culture (Koentjaraningrat, 1985).

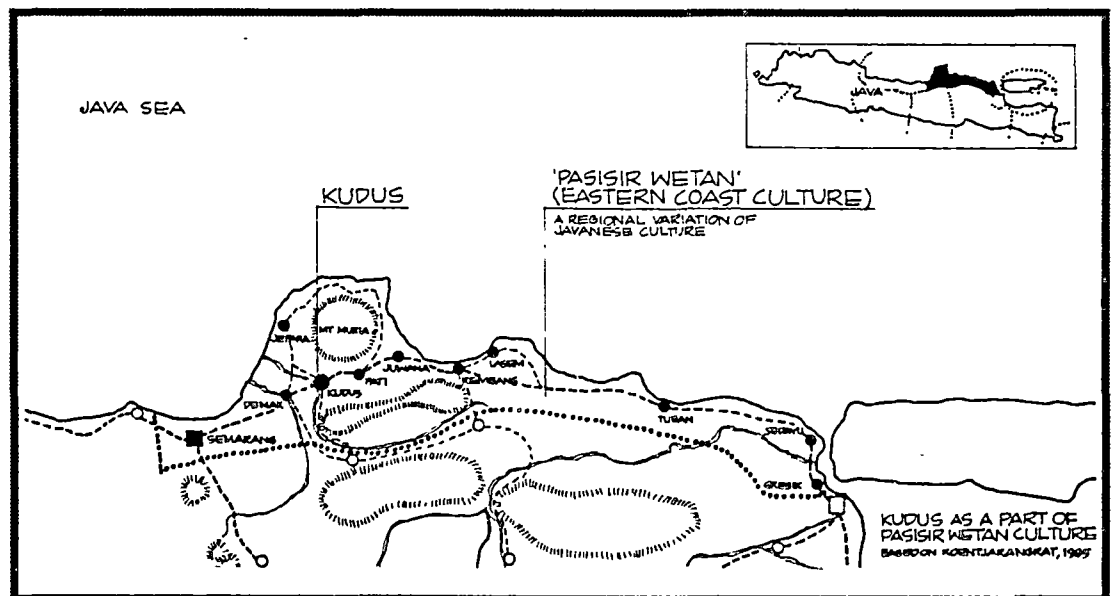


Fig. II.2 Kudus is part of the eastern sub-variety of Javanese culture (Koentjaraningrat, 1985).

The total range of the North Javanese communities should not be considered as one unified block with a homogeneous cultural orientation, similar economic interests, and political objectives. Pigeaud suggests that, according to the fifteenth-century Javanese Islamic literature, the North Javanese communities of that period should be divided into three groups, so that there were three centres of North Javanese coastal civilisation. The three subdivisions are: (1) the western sub-group, which includes Banten, Cirebon, Tegal and Pekalongan, which extended to the Sundanese states in the interior of West Java and to Lampung in South Sumatra; (2) the central sub-

group, which includes Demak, Jepara, Kudus and its vicinity, which outside the Javanese area extended to Banjarmasin in South Kalimantan; and (3) the eastern subgroup, which includes the Javanese port towns of Gresik and Tuban, which outside Java extended to Madura and Lombok.<sup>29</sup>

The Javanese themselves, however, only make a distinction between a western subgroup (*Pasisir Kulon*) centred in Cirebon and an eastern group (*Pasisir Wetan*) centred in Demak, whereas the culture of Surabaya and its surroundings, with its unique Surabaya dialect, is considered as a separate region.<sup>30</sup>

The history of Kudus as a distinctive religious community, distinguishes it from typical Javanese towns. Consequently, the social structure of "Kudus people" is distinct from that of the Javanese in general.<sup>31</sup> Kudus people are trade-centred and religious-oriented, with egalitarian beliefs. The Javanese are agrarian and tend to be syncretistic, with a hierarchical social structure. The description of Kudus people, however, should be seen in the context of the Javanese society.

### Pre-colonial Javanese Society

According to Castles, the pre-colonial Javanese society was a two-class model, consisting of: (1) the upper class kings and the nobility; and (2) the lower class peasantry. It was a self-sufficient and self-contained agrarian society ruled by an absolute monarchy. The royal servants, including soldiers, artists, craftsmen, and menials, were completely dependent on the king. They produced goods and provided administrative services and defence. It was their relation to the king, as aristocratic officials, that raised them above the peasant class.<sup>32</sup>

Such a model did not flourish in the societies that were orthodox in their Islamic belief, such as Muslim societies of the north coast towns, including Kudus, and of the *kauman* quarters of the inland court cities of Yogyakarta and Surakarta. These societies believed in similarities and common brotherhoods based on Islamic teachings. They contained two groups: (1) the independent Islamic religious teachers (*kyais* or *ulamas*), who were a source of sporadic rebellions against the Dutch colonial government and of continuous resistance to the syncretistic philosophy of the aristocrats and government officials; and (2) the indigenous entrepreneurial merchants operating

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<sup>29</sup> Pigeaud, 1967. as discussed by Koentjaraningrat in *ibid.*, pp. 21 & 49.

<sup>30</sup> Koentjaraningrat, *op.cit.*, p. 21.

<sup>31</sup> This refers particularly to the people of the old town or "West Kudus" or "Kudus Santri".

<sup>32</sup> Castles, *op.cit.*, pp. 4-5.

in such limited fields as trading in agricultural production and the manufacture of *batik* and *songket* clothes, who were devout Moslems (*santris*).<sup>33</sup>

### Colonial Javanese Society

The importance of the fifteenth- and sixteenth-centuries Javanese religious and court towns gradually decreased. They were eclipsed by the administrative towns that came into being with the development of the Dutch colonial administration during the nineteenth century. Most of these nineteenth-century towns were centres of the government administration instead of centres of industry and commerce. Even in towns that were centres of sugar or other plantations, mining industries, or important market centres, the administrative aspect was still dominant. The social structure was typical, in which officials of the administrative service, the intelligentsia and the mixed-blood Indo-Europeans quantitatively dominated the society.<sup>34</sup>

The two-class character of Javanese society transformed along with the established Dutch rule over Java. It consisted of: (1) the aristocratic government-linked upper class; and (2) the much larger blue-collar occupation lower class.<sup>35</sup>

The upper class included: (1) Dutch expatriates in private businesses and Dutch or Indo-European managers and senior employees of the railway companies and sugar estates and factories; (2) Javanese officers of the administrative service (*pangreh praja*); and (3) the intelligentsia. The second and third groups were called *priyayi*, and were considered socially superior to manual labourers and traders.<sup>36</sup>

The lower class Javanese were the most numerous of the town population. Called "the little people" (*tiyang alit*), they had abandoned peasant life to move to the towns to labour in the Dutch and Chinese enterprises, produce handicrafts, sell food in open markets, or work as servants in aristocratic or *priyayi* households.<sup>37</sup>

The kings and the nobility formed another group outside the two classes. They lost their absolute power and were replaced by the colonial government officials, but retained traditional authority and were used by Dutch officials to reinforce colonial rule. The newly emerged aristocratic class of the administrative officials and the intelligentsia appears to have been politically more influential. Many people of the

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<sup>33</sup> *ibid.*, pp. 10-1.

<sup>34</sup> Koentjaraningrat, *op.cit.*, pp. 63-5.

<sup>35</sup> Castles, *op.cit.*, p. 5.

<sup>36</sup> Koentjaraningrat, *op.cit.*, pp. 66-7, after Sutherland, 1975.

<sup>37</sup> Koentjaraningrat, *op.cit.*, pp. 66-7.

nobility entered the upper administrative class through higher education, which was "Western"-oriented. This was because they were the only indigenous group who was given opportunities to pursue higher education, so that they became the intelligentsia and occupied higher ranks in the administrative service.

Some devout Javanese merchants (*saudagars*) formed a distinct social grouping.<sup>38</sup> They lived in the *kauman* ward situated nearby the town mosque. Even though these merchants were an important part of the society, the role of middlemen in the economy, trade and service industries was in the hands of the Chinese. The Javanese urban traders, therefore, appear to have been most successful in towns with smaller Chinese populations, such as in West Kudus. They traded in sectors that the Chinese had left vacant or had not yet fully occupied.

In the colonial legal system, a clear distinction was made between the Chinese and the indigenous population, which widened the gap between the two social categories. The Chinese belonged to the legal category of *Vreemde Oosterlingen* or foreign Orientals, and the Javanese belonged to the *Inlanders* or natives. The Dutchmen and *Indo-Europeans* were legally categorised as *Europeanen* and subject to a different legal system.

### Post-colonial Javanese Society

Apart from the Dutch and the Indo-Europeans who left Indonesia after World War II, urban Javanese may generally fall into three social groups: (1) the commoners and people in blue-collar occupations; (2) the merchants; and (3) the civil servants in administrative service, government bureaus and other white-collar occupations. The Chinese form a distinct group, similar in economic function to the merchants but sharply separated culturally. The Javanese nobility occupies an additional fourth social group.<sup>39</sup>

The Javanese nobility (*para bandara*), has been members of the kin's groups of the four principalities' heads of the inland (*Negarigung*) region: Yogyakarta, Surakarta, Mangkunegaran, Pakualaman, and the Cirebon principality in the western north coast

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<sup>38</sup> Geertz suggests a model of three different yet complementary social structures in Javanese society; which are the rural *abangan*, the trade-centred devout *santri*, and the Javanese-Hinduistic *priyayi* centred in administrative quarters. Bachtiar and Suparlan however reject this classification as a misleading juxtaposition of religious and social divisions. See : Clifford Geertz, *Abangan, Santri, Priyayi dalam Masyarakat Jawa*, 3rd edn., original title : *The Religion of Java*, The Free Press of Glencoe, London, 1960, trans. Pustaka Jaya, Jakarta, 1989; Parsudi Suparlan, 'Preface', in *ibid.*, pp. vii-xiv; Harsja W. Bachtiar, 'The Religion of Java : A Comentary Review', in *ibid.*, pp. 521-51.

<sup>39</sup> Koentjaraningrat, *op.cit.*, pp. 230-3.

(West *Pasisir*) region. The *para bandara*, who were originally retainers, officials, or artists in the courts, have occupied positions in the civil service and had a lifestyle similar to that of the *priyayi*. After Indonesian independence in 1945, the Javanese courts lost their administrative power and cultural authority. No longer the repository of Javanese values or artistic excellence, the nobility has lost the prior exalted status. Some have lived a lifestyle of the commoners or entered the merchant class through family businesses, while many of them have entered the white-collar class through higher education.<sup>40</sup>

### Social Organisation in Kudus

The east town of Kudus, which was established by the Dutch in the late eighteenth and early nineteenth centuries and has popularly been known as 'East Kudus' or 'Kudus *Priyayi*', is one of the administrative towns of Java. In the colonial era, the social structure of East Kudus society was similar to that of the other towns, in which officials of the administrative service, the intelligentsia and the mixed-blood Indo-Europeans quantitatively dominated the society.

The old town of Kudus, which has been notable as 'West Kudus' or 'Kudus *Santri*' remains a town of religious people which consists of primarily Islamic religious teachers and devout Muslim merchants, who were orthodox in their belief and way of life. In the colonial era, because of the dislike of the Dutch colonial government, there was a tendency in Kudus society to consider government service as a type of civic betrayal. Therefore, from the colonial period until recently, being a civil servant was almost considered a taboo, whereas entrepreneurship was preferred as means of livelihood.

It was only in the 1970's, in the New Order era, that some family members of West Kudus chose to be civil servants, such as government officials or public school teachers. However, even until the present day, the people of West Kudus regard small business ownership as preferable to the civil service. In choosing a son-in-law, for instance, Kudus people generally prefer someone who can *jigang*, which denotes someone who is both a devout Muslim and a skilful merchant, rather than a civil servant.<sup>41</sup> This apparently is consistent with the society's ideal of an established life as both a *haji* and a successful trader. However, this opinion may change, in line

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<sup>40</sup> loc. cit.

<sup>41</sup> *jigang* is an abbreviation of *ngaji* and *dagang*. The former, which literally means 'enchanted Koran verses', refers to devoutness. The latter, which literally means 'trading', refers to entrepreneurship. Interview with Mr. Haji Ma'ruf, Head of Langgaldalem quarter, 20 January 1993.

with the rapid economic and socio-cultural changes that are now taking place in the town.

Apart from its history as a religious community, the economic history also makes Kudus different from typical Javanese towns. The great importance of clove cigarette (*kretek*) industry, which created Kudus' reputation as an early industrial town in Indonesia, put the town rather outside the regular social hierarchy of towns and regional centres, though more in degree and number than kind. A polarisation between the common people and the wealthy merchants seems to have pushed the official class from a central and leading position.<sup>42</sup>

In the early development of cigarette enterprises, there was indigenous, Chinese, Arabs, and mixed Chinese-Indonesian ownership. Among the indigenous manufacturers, which at the time of Castles' mid 1960's research, constituted forty-one per cent of total production, three groups can be distinguished: (1) a group of interlocking families in West Kudus; (2) medium-scale new manufacturers who were rural in origin; and (3) a large number of small-scale manufacturers who scattered throughout the town and nearby villages.<sup>43</sup>

The first group, which consists of those referred to as "the people of Old Kudus", was successful during the nineteenth and the early twentieth centuries. These people live in traditional timber houses in the old town. The earlier generations were frugal, hard-working, astute businessmen, devout Moslems, and educated in traditional Islamic schools. Castles states that, in the period of peak of prosperity, they tended to be a self-conscious bourgeois class in contradistinction to the official and religious elite groups in the town. Though resentful of social exclusiveness founded upon wealth, they tended to separate themselves and marry either among each other or with comparable Moslem merchant families in other towns. Some built large, rather ostentatious European-style villas, while others remained in their high-walled traditional timber houses. They adopted the reformist Islamic movement, Muhammadiyah, in the town as an ideological vehicle to differentiate themselves from the official and religious elites, and sent their sons to Western-type schools often organised by the Muhammadiyah. After the revolution of independence in the mid 1940's, most of these families suffered from economic pressures that have since led to their decline. In line with the growing of consciousness that higher education has become means to

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<sup>42</sup> Castles, op.cit., pp. 52-3.

<sup>43</sup> *ibid.*, pp. 56-8.

gain better social status and the best guarantee to economic security, this social group has sent their sons and daughters to state schools and universities.<sup>44</sup>

The second group, the medium-scale manufacturers who largely were village people living several kilometres from the town, have become successful since the revolution of independence. They are either connected by marriage to the main groups of old Kudus families or were originally employees of these families. The *santri*'s tradition of working hardly, frugally and risk-takingly seems to have survived better in the villages than in the town. The third group, the small-scale manufacturers in the town and nearby villages, have been less successful, so that they have much less significant role in the economic life of Kudus.<sup>45</sup>

Islamic religious functionaries hold a significant place in Kudus society. Since Islam has no clerical organisation, many people devote themselves primarily to religious functions and therefore gain social prestige. They include: (1) *kyais* who preside over traditional schools; (2) *muballighs* who propagate or explain Islam; (3) guardians of mosques and sacred cemeteries; and (4) officials of the Department of Religious Affairs. The *santri* community respect them both for the functions they perform and for their knowledge, real or supposed, of Islamic learning. This prestige and respect for Islamic lore also extend to those who have made pilgrimage to Mecca (*haji*s and *hajahs*), teachers in less than traditional Islamic schools, and teachers of Islamic religion in state schools. These religious functionaries provide guidance on political and social affairs for the *santri* community. They also serve as leaders in their specific fields, i.e. in praying at communal feasts and officiating funerals. The more prosperous religious functionaries can afford the pilgrimage to Mecca or devote time to the study of Islam. Castles remarks that Islamic scholars are thus likely to have inherited property, have married propertied women, or depend directly on wealthier and economically active relatives.<sup>46</sup>

Some social integration occurred between the religious functionaries and the *santri* middle-class business group. Some of the functionaries have become part-time traders, because they receive inadequate salaries and fees. However, as the social gap between successful businessmen and small-scale traders widened, the harmony between the two groups was also lost. The *kyai* with their purely religious prestige clashed with the businessmen seeking to moderate Islam. Inter-marriage and close social relations between successful *kretek* manufacturers and *kyais* have recently

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<sup>44</sup> loc. cit.

<sup>45</sup> loc. cit.

<sup>46</sup> Castles, op.cit. , pp. 59-60.



been rare, due not only to ideological differences but also to gaps in standards of living and education.<sup>47</sup>

Some people who claim descent from Sunan Kudus still live in Kudus and claim the title *Raden*, a pre-colonial Javanese aristocratic title. However, their lifestyles differ from that of other Javanese aristocrats. Most of them are not wealthy and have occupations as traders, artisans, or religious functionaries, rather than as government officials. These *radens* are orthodox and devout Moslems who formerly had a privilege as guardians of the cemeteries and the mosques that is no longer their monopoly today.<sup>48</sup>

### Gender in Kudus Society

The *santri* Javanese normatively recognise equality of men and women or husbands and wives. The view is based on several verses of the Koran, such as ii-228, xvi-97, xlix-13.<sup>49</sup> Javanese households, however, are considered to be women's domain. Women are the main and direct authority over the children. They often have their own income from selling food or garden products in the market, or working as an agricultural labourer during certain periods of the agricultural cycle, such as planting, harvesting, and rice threshing. Women in the villages play a less overt leading role in public, social and political affairs than those in the towns. Although female landholders do have the same voting rights as men, they are not usually involved in such matters, and send their sons to represent them at village meetings.<sup>50</sup>

Marriage and family ties appear to be stronger and more influenced by Islam among West Kudus residents than among the Javanese generally. Until the middle of this century, Kudus wives were believed to be particularly virtuous; they maintain the home by making *batik* clothes, embroidery and other home-industries while their husbands were away trading. The non-*santris* in the East, on the other hand, spoke with pity of the seclusion and subjection of West Kudus women. In fact, this has gradually changed as Kudus women have become more involved in trading activities, and have received an equal education.<sup>51</sup>

The community of West Kudus originally had an endogamy marriage system, in which blood relationship was formed through inter-marriage of *santri* and *ulama*

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<sup>47</sup> *ibid*, p. 60.

<sup>48</sup> *ibid*, p. 44.

<sup>49</sup> Koentjaraningrat, *op.cit.*, pp. 139 & 221.

<sup>50</sup> *ibid.*, p. 139.

<sup>51</sup> Castles, *op.cit.*, p. 47-8.

families within the community. This system has gradually been replaced by exogamy, along with the change in their livelihood means from a mostly agricultural and craftskill basis to a mainly merchandising basis. This trading activity has encouraged wider social contact with merchants from other parts of the town and other towns, which has led to inter-village and inter-towns' marriage ties.<sup>52</sup>

Until about the mid-twentieth century, young women of Kudus were prohibited from having direct contact with men. Immediately after puberty, girls were kept in the houses, secluded from the outer world of boys. They could only talk to men from behind a semi-transparent partition such as carved wooden panels and bamboo blinds. They had to learn religious duties, such as Koran recitation and interpretation, and household duties, such as cooking, sewing, and caring for younger brothers and sisters. Girls were also encouraged to help their parents in family trading or craft businesses as a form of apprenticeship while learning the home duties.

## **The Religious Foundation of Kudus Society**

### **Islamic Way of Life**

People of Kudus are generally proud to be of West or Old Kudus origin, although they may not express this directly. A common view claims that Kudus people who migrate elsewhere always remain Kudus people, and those from other places who settle in Kudus soon become Kudus people. This, however, is only true if the newcomers are devout Muslims.

Local pride is tied to local history, in particular to the great Sunan Kudus and his honourable pupils and followers, who have been known as both Islamic scholars and successful merchants or craftsmen. Kudus residents, particularly those who live in the old town, are proud to be descendants of these scholars and merchants who had three strong views: (1) a principal work ethics of working hardly both as traders, craftsmen and religious scholars rather than becoming administrative officials; (2) a principal life ethic of committing a simple life style to gain prosperity; and (3) a principle educational ethic of relying on Islamic traditional system rather than on the Western one introduced by the Dutch.

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<sup>52</sup> Achmad Adaby Darban, *Kampung Kauman, Sebuah Tipologi Kampung Santri di Perkotaan Jawa, Studi Perbandingan Sejarah Pertumbuhan Kampung Kauman Kudus dan Yogyakarta* (Kauman Quarter, a Typology of Islamic Quarters in Javanese Towns, a Comparative Study of the Historical Development of Kauman Quarters of Kudus and Yogyakarta, Faculty of Letters Gadjah Mada University, Yogyakarta, 1984, pp. 36 & 41.

This type of local patriotism connects primarily with the unusual devoutness of Kudus people to Islamic religion, the so called "*santri*-oriented way of life". The way of life and social conditions signify a profound influence of Islam, so that a "*santri*-community" with a strong sense of devotion to Islam has been a prominent attribute that still exists today. Such devoutness apparently due to an awareness that the town has been a centre of Islamic struggle of a Javanese Islamic saint in the sixteenth century.

People of Kudus perform the required Moslem incantations (*shalat*) regularly five times a day and faithfully attend the Friday noon services and sermons at the mosques. They abstain from eating pork, drinking alcohol, performing the Javanese tradition of sacred communal meals and, which is peculiar to Kudus, eating beef. Those who have not made pilgrimage to Mecca hope to perform at least once in their life.

Some people of Kudus are functionaries of the mosques. A few numbers are teachers of public schools and staff of government offices, while the majority are entrepreneurs and small-scale traders. It is however inaccurate to state that they are all either functionaries or officials or traders. Many have more than one profession, such as both officials or teachers and part-time traders or religious functionaries. Those who have secular occupations, such as teachers and officials, appear to be more religious-oriented than the Javanese of the same occupations generally.

Kudus people who have migrated to other places largely still preserve their identity as natives of Kudus. Castles remarks that those who have migrated to other towns to work in commerce and trades are known for their religious orthodoxy. They assist young Kudus men in finding work, so that they provide a ready-made distribution network for Kudus industries.<sup>53</sup> Many of them return to Kudus in their old age to retire. Most of them visit Kudus regularly not only to see their families annually at *Idul Fitri* as do other Indonesian Moslems, but also on special occasions of Kudus, such as *Bukak Luwur* and *Dandangan* festivals. Such a visit is considered as expression of loyalty to their home town.

### Islamic Tradition and Cultural Life in Kudus

Kudus people live as an almost exclusive community within a specific social relationship. They follow a set of values, customs and ethics that are based on Islamic

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<sup>53</sup> Castles, op.cit., p. 47.

learning. They have two basic social affiliations, Islamic religious tradition and blood relationship, which appear to have further helped the formation of a specific community. Islamic traditions influence their religious activities, social activities, community organisations, education system, cultural life and performing arts.

The social formation dates from the mid-sixteenth century at the time of the establishment of the town, when several pupils (*santris*) of Sunan Kudus became Muslim religious teachers, scholars or leaders (*ulamas*) and lived around al-Aqsa mosque on the lots granted by Sunan Kudus. Their main duty was to maintain the prosperity of the mosque complex and its religious community. They were also expected to foster family ties through marriage and the association of believers (*ukhuwah*) among Muslim scholars and the Muslims generally.<sup>54</sup>

People of Kudus consider the community to be united in a brotherhood which is based on the Islamic idea that every human being is equal in front of God. The great mosque al-Aqsa provides a central focus for the community, and other smaller mosques (*langgars* or *musholas*) provide places for communal activities in the neighbourhood level. These mosques serve as a place for religious purposes, such as Friday worship, daily prayers, Koran recitation, annual Islamic celebrations, religious education, and the collection and distribution of tithe (*zakat*). They also serve as meeting places for other religious services, such as marriage and funeral ceremonies. The gathering of the people for religious events and ceremonies in the mosques has made the social cohesion of the community even stronger.

Kudus people perform and celebrate general Muslim religious events, such as the commemoration of Muhammad's birthday (*Maulud*), the feast of the sacrifice which is also a holy day associated with the pilgrimage to Mecca (*Idul Adha*), the fasting month (*Ramadhan*), and the feast celebrating the end of fasting period (*Idul Fitri*). In addition to such widely observed celebrations, Kudus people accomplish several annual religious events peculiar to their community, which apparently represent a combination of Islamic ideas and native Javanese ideas that date back to the pre-Islamic period. These include: (1) the beating of mosque drums to announce the beginning of Ramadhan (*Dandangan*), accompanied by the opening of a bazaar in which stalls selling various goods and foods occupy the squares and particular roads of the town during the fasting month<sup>55</sup>; and (2) the replacement of the curtain of Sunan Kudus' tomb which is held annually (*Bukak Luwur*).

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<sup>54</sup> Darban, op.cit., pp. 34-5.

<sup>55</sup> These food stalls open only in the evening and at night.

The religious life of Old Kudus people evokes a specific atmosphere in the old town. Most of the people wear Indonesian-style Muslim clothes. Students dressing in such clothes flock to and from schools every morning and afternoon. People flock to the al-Aqsa every Friday noon for communal worship. They gather in smaller *langgars* or *mushalas* every evening to attend daily evening prayer, which is then continued with Koran recitation. A small number of families perform evening prayer and Koran recitation in their own home for their own family members. These recitations are also often held in individual houses in each neighbourhood on a rotating basis. The voice of people reciting the call for prayer (*adzan*) can be heard from each mosque at least five times everyday. During the Ramadhan the religious atmosphere is even stronger and can be clearly observed: no food vendors can be found during the day and the strains of Koran recitation can be heard from every mosque and house in the evenings and early mornings.

Apart from the daily life of the people, pilgrimage activities centred on the Menara Complex enhance the religious atmosphere of Kudus. As visits to holy tombs are a well-established practice, pilgrims and ordinary visitors visit the cemetery of Sunan Kudus and pray at al-Aqsa nearly everyday. Their number increases on certain days of the Javanese monthly cycle. On the days of annual special occasions, such as *Bukak Luwur* and *Dandangan* events, pilgrims and visitors from other places of Java flock to Kudus, change the old town into a remarkably crowded place. Visits to tombs of Islamic saints and holy men are an accepted act of piety throughout the Moslem world. On Java, as well as elsewhere in Indonesia, however, such pious practice has been combined with various traditional ideas and often extended beyond the realms of orthodoxy.<sup>56</sup>

People of Kudus rely their education primarily on religious schools. Most children attend private schools run by Islamic religious organisations (*madrasahs*), such as *Madrasah Qudsiah*, which was established in 1919 by Kyai Asnawi and Kyai Nurhadi, two notable religious scholars of Kudus.<sup>57</sup> Those who have had an elementary education at state public schools usually still continue at secondary *madrasahs* and Islamic tertiary education institutes. Many of them, including those who have graduated from state public schools and *madrasahs*, are still encouraged to go to traditional religious schools (*pesantrens*). It is a compulsory for all children to attend

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<sup>56</sup> James J. Fox, 'Ziarah visits to the tombs of the Wali, the Founders of Islam on Java', in *Islam in the Indonesian Social Context*, Annual Indonesian Lectures Series no.15, M. C. Ricklefs, ed., Centre of Southeast Asian Studies, Monash University, Clayton, Vic., 1991, p. 19.

<sup>57</sup> Darban, *op.cit.*, p. 37-8.

Koran recitation classes centred in al-Aqsa, and held in neighbourhood mosques and houses of religious scholars (*kyais*).

Religious-oriented performing arts also play an important role in the cultural life of Kudus, even though they are rarely presented recently. These include a type of Islamic music sung in chorus usually by women (*samroh*), chants recounting Muhammad's life (*barzanji* or *dhiba'an*), musical bands playing Arabian songs performed with specific instruments, such as a kind of six-stringed plucked instrument of Arabic origin, a drum and a harmonium (*gambus*), and musical bands playing modern instruments and modernly-arranged songs of religious messages, usually mixed with those of Arabian origins (*qasidah*).

## APPENDIX III :

### Approaches to Heritage Conservation

As every place presents peculiar problems and demands, generalised solutions for its protection cannot be used. The approaches used here address the questions of what should be protected, why, how, and who should carry out the protection.

#### What should be protected

The question of 'what should be protected' considers the understanding of the concept of 'places of cultural heritage value'. Even though the major focus of heritage protection may be with individual buildings, the value of these buildings depends primarily on their contribution to larger areas. Heritage protection is therefore often centred on registered buildings or major monuments. Features of both urban and rural settings, such as groups of buildings, streets, squares, pedestrian routes, village greens, and agricultural fields, also contribute to the essential physical quality and cultural value of the areas.<sup>25</sup> The protection of individual buildings and landmarks tends to be static. The protection of areas, on the other hand, accommodates possible changes to the dynamic socio-economic life of the users, and incorporates a strategy to control growth, development, and necessary rebuilding.

Heritage protection also comprises the conservation of both monuments and modest traditional habitats. Grand monuments result largely from self-conscious design processes, based on a particular style and method of design. Traditional habitats, on the other hand, result largely from an unconscious cultural process handed-down through generations. Built with sensitivity to local conditions, they often seem insignificant because of their human scale, less notable aesthetic quality and vulnerable

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<sup>25</sup> David Morton, 'Conservation Areas : Has Saturation Point Been Reached?', *The Planner*, vol. 77, no.17, 1991, May 17, p. 5; Sir James Richards, 'Conservation Today', Edward James Memorial Lecture given at West Dean College in July 1990, *RIBA Journal*, v.98, no.8, August 1991, pp. 36 & 44.

materials. As each makes its own contribution to the cultural and physical environments, both grand monuments and traditional habitats require protection. Heritage protection often involves less than significant structures. An ordinary structure can be worthy of protection if it is visually compatible as part of significant surroundings. Regardless its little cultural significance, an ordinary structure may have physical importance in filling a gap and visually enhancing townscapes or streetscapes.

Heritage protection also comprises both old and new structures. There is a danger of eagerness to mistrust every new structure and preserve almost every old structure just because of its age. New structures of good quality can enhance the historic context of a setting. They can also be invaluable heritage themselves in the future. It is important to note that a combination of the old and the new reflects historical continuity and presents architectural harmony in the environment.

The question often arises, however, whether to protect less than significant structures or demolish them to give space for new structures. If there is no published assessment of the cultural significance and architectural character of the structures and the area, this can result in a serious conflict.<sup>26</sup> Thorough assessment of both the existing and the proposed structures is required before any decision-making.

There is no doubt that uncontrolled demolition of non-listed or less than significant structures can be a disaster. Such a demolition can ruin the character of protected areas, considering that these structures play an important role in enhancing the townscape. However, controlled demolition may sometimes be a part of the dynamic planning and conservation process. In the case where demolition is approved, the new structures should ensure improvement of the character of the protected areas.

Approaches used to safeguard structures of cultural heritage value therefore fall into two categories: first, the protection of structures as artefacts to provide resources for historic and aesthetic value, and second, the protection of structures as living architecture and urban area in order to accommodate both historical and socio-economic survival of the inhabitants. The former involves merely physical considerations, while the latter embraces socio-economic factors. While the former is concerned with the preservation of passive objects, the latter involves active subjects who have the right to change. The former attempts to keep existing structures as they are today or they were at a particular time in the past. The latter, on the other hand, attempts to

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<sup>26</sup> Morton, *op.cit.*, p. 7



maintain continuity and harmony while at the same time accommodating new developments. The conservation of slum-like urban structures like the Old Delhi in India and the Old Kowloon in Hongkong<sup>27</sup>, therefore, is as important as the preservation of great monuments of the world like the Borobudur Temple in Central Java, Indonesia and the Great Wall in China. The conservation of the towns of Lalitpur and Bhaktapur in Kathmandu Valley, Nepal, is equally important as the preservation of Hanuman Dhoka palace.<sup>28</sup> Similarly, the conservation of the entire slum-like residential quarters of the old town of Kudus is as important as the preservation of its mosque al-Aqsa or its best quality timber houses.

### Why to be protected

The question of 'why protect places of cultural heritage value' considers possible benefits for both the community and the built-environment which result from heritage protection. These benefits comprise economic, cultural, planning and aesthetic values.

Heritage protection activities result in economic benefits because such activities stimulate development of local craftskill, employment and building trades. Restoration, rehabilitation, and adaptation programmes, for example, can provide positive impact in creating an area of high prestige for both residential and commercial uses. Such prestige attracts potential users and encourages further heritage protection activities. Improvement and continuing use of heritage structures and areas also increases property values which, in turn, increases tax returns for the government which results in the increase of government funding for further protection activities. Economic benefit can also be achieved through cultural tourism, conventions and trade activities resulting from well-promoted heritage protection programmes.<sup>29</sup>

Marked cultural benefits, both educational and historical, can also be achieved through heritage protection activities. Heritage structures possess educational value which is important for local historians, architects and planners, as well as for local communities and schools. These structures also exhibit historical continuity and physical integrity perceived by both visitors and the inhabitants. Such perception

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<sup>27</sup> See : Peter Popham, 'The City of Darkness', *The Architectural Review*, vol. CXCI, no.1161, November 1993, pp. 71-5.

<sup>28</sup> See : Yogeshwar Parajuli, *Bhaktapur Development Project: Experiences in Preservation and Restoration in a Medieval Town 1974-1985*, Bhaktapur Development Board, Lalitpur, Nepal, 1986.

<sup>29</sup> Ralph W. Miner, *Conservation of Historic and Cultural Resources*, American Society of Planning Officials, Chicago, Illinois, 1969, pp. 9-10.

can generate a sense of belonging and responsibility, leading to their continuous maintenance.<sup>30</sup>

Dynamic heritage protection offers planning benefits. Economically feasible adaptive reuse of heritage sites and structures, for instance, fulfils the basic objective of maximum utilisation of scarce resources, such as land and buildings in densely built-up areas. Heritage protection arrests the onset of decay and manages wasted structures and areas, while at the same time fostering appropriate growth and development. The preservation and restoration of landmarks, in addition, can provide focal points for urban settings that raise the value of the environment, which in turn, enhance planning opportunities.<sup>31</sup>

The protection of structures of cultural heritage value also offers aesthetic enjoyment for the observers through the presentation of *patina*.<sup>32</sup> As such protection does not attempt to arrest the process of aging, which is against nature, the authentic fabric and form of well-protected structures continue to change due to inevitable natural weathering, mechanical forces and human interventions over time. This process is accompanied by "a process of aging with beauty", which results in the exhibition of *patina* on the structures' exterior. If the first process of aging may decrease aesthetic value due to decay, the second increases it due to the positive effects of *patina*.<sup>33</sup>

### How to protect

The question of 'how to protect culturally significant places' is concerned with the extent of heritage protection. It considers the degree of intervention on the fabric, setting and value of places. This can be either static preservation or dynamic conservation.

The distinctions between the two approaches may be that : (1) static preservation tends to be concerned with individual buildings, whereas dynamic conservation con-

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<sup>30</sup> loc.cit.

<sup>31</sup> loc.cit.

<sup>32</sup> *Patina* literally means 'the sheen on a surface that is caused by long handling'. See : G.A. Wilkes, ed., *The Collins English Dictionary, Australian Edn.*, 2nd.edn., Sydney, 1986, p. 1126.

<sup>33</sup> Papageorgiou remarks that *patina* occurs particularly on structures that are made up of traditional materials such as stone, brick, and wood. The effects of *patina* help to integrate such structures into their natural setting, eliminating the visual contrast between man-made structures and the natural environment. Structures that use industrial products such as glass, metal and synthetic materials receive no benefit from the effects of *patina*, for their highly polished surfaces have to be constantly renovated and cleaned. These structures however do not necessarily exhibit *patina*, because they are largely intended to be in harmonic confrontation with the natural setting rather than in harmonic integration. See : Alexander Papageorgiou, *Continuity and Change: Preservation in City Planning*, Pall Mall Press, London, 1971, pp. 112-122.

siders groups of buildings and overall areas; (2) static preservation is concerned with the physical aspects of buildings, whereas dynamic conservation is concerned physical, socio-economic, and cultural aspects; (3) static preservation is typically a finite process, restoring a building to its optimum state, whereas conservation is flexible cumulative, and incremental; and (4) static preservation tends to be based on the view of experts on aesthetic quality and historical value, whereas conservation is concerned with popular values and perceptions of well established and familiar environments.<sup>34</sup>

Regardless which approach is chosen, the protection of a heritage structure should be seen as an effort to both retain its essential value and move forward by exploring its capacity.<sup>35</sup> Architectural heritage protection should aim at maintaining a structure in a state in which it is still capable of accommodating the needs of the users, rather than trying to select a certain stage and arrest the process, which will withdraw its potential for productive use. In the latter, architecture is seen as merely a structure in the townscape, which, at a certain point, will transform to become partially landscape.

Dynamic conservation emphasises control rather than prevention, allowing the area to remain viable while ensuring compatibility of any development with its architectural qualities and cultural significance. Change, therefore, is acceptable in dynamic conservation, where compatible new development can take place within a protected area. In static preservation, conversely, the process of change becomes stifled at the date of designation.<sup>36</sup> Every new building, however, should be designed as part of a larger whole that has a well-established character and significance, rather than as a separate entity. The creation of new structures in a protected area, moreover, should avoid falsifications, arbitrary decisions, and a mistaken conception of local character and significance. Three methods govern the design of new structures in protected areas, which are: (1) the construction of exact copies, which is a legitimate method of duplication but not a falsification; (2) the creation of new structures that exhibit harmonic integration in the setting; or (3) the creation of new structures that demonstrate harmonic contrast between the old and the new.<sup>37</sup>

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<sup>34</sup> Tony Aldous, 'Shop talk' (opinion on conservation virtues), *Building Design*, no.832, 17 April 1987, p. 11.

<sup>35</sup> Richards, *op.cit.*, p. 36.

<sup>36</sup> See : the Planning Act 1990 of British conservation legislation on Listed Buildings and Conservation Areas, discussed by Morton, in *op.cit.*, pp. 5-8.

<sup>37</sup> Papageorgiou, *op.cit.*, p. 105.

Reusing and recycling heritage structures through adaptation for contemporary activities is a creative process in dynamic conservation. It can improve the heritage structure and the historic atmosphere of the townscape. New development can reinforce an historic context, if the existing structures facing demolition for the new structure are of no significance, and the new structure is carefully designed to be visually and socially compatible with the heritage surroundings. The new structure can therefore enrich the historical value as it demonstrates continuity of the past and the present.

There is a danger of inappropriate attitudes to static preservation, particularly regarding the extent of protection, which can lead to the creation of fake "purity" and the destruction of historical continuity. The art of heritage protection can easily be side-tracked by two errors: over-enthusiasm or misjudgement.<sup>38</sup> Over-enthusiasm often leads to a problem of over-restoration, while misjudgement often results in mistaken total restoration.

Attempting to totally restore a structure to a particular period of the past is possible only if sufficient knowledge of its heritage value and accurate evidence of its original state of that period are available. Two factors hinder this approach: (1) the determination of which earlier state is the original; and (2) the need for the destruction of contemporarily-valuable elements which do not belong to the particular earlier state presumed to be original. Total restoration, moreover, may be legitimate only if: (1) the historical continuity between that period with the present has been broken, so that the knowledge and evidence of the former period are the only legitimate reference; and (2) the structure has no role in the surrounding landscape, so that the totally restored structure would not create obsolescence in the setting.<sup>39</sup>

Restoration can be undertaken through two approaches. First, restoration attempts to return a structure to "as new" condition based on how it was when built or at some other specified date, or, since the information is usually inadequate, how it might have been at such a date in the opinion of the restorer, or, how it should have been then in the opinion of the restorer. Second, restoration should not interfere with the fabric of the structure at all, or, at least, necessary work should be carried out in contrasting contemporary materials to avoid any suggestions of forgery.<sup>40</sup> The restoration works of medieval buildings in Europe, particularly cathedrals in Britain

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<sup>38</sup> Richards, *op.cit.*, p. 38.

<sup>39</sup> Lancaster, *op.cit.*, p. 70.

<sup>40</sup> Miles Lewis, 'Conservation : a Regional Point of View', keynote address in Burke, Lewis & Saini, *op.cit.*, p. 5.

in the eighteenth and nineteenth centuries, are examples of the former.<sup>41</sup> The latter can include a wide range of examples. The use of metal plate for repairing the roof parapet in the restoration of the Clarendon House in Tasmania may be the simplest appropriate approach. The exploration of technological advantages through experimentation and contemporary materials in the works of Renzo Piano may be a complicated yet also appropriate approach.<sup>42</sup>

Another danger of inappropriate approaches to static preservation concerns the determination of compatibility of new construction in an established heritage area, which can lead to the creation of imitation, rather than the generation of aesthetic harmony. Conservation should consist of taking care of what remains but not imitating what has gone. A heritage structure should be restored or repaired with respect for its age, so that it still honestly reflects its history.<sup>43</sup> Architectural forms and qualities transform; attempts to put a structure back to an assumed original state by creating a modified copy may result in fakery or imitation. Insufficient understanding of a structure's original state, inadequate quality of craftskill, and reduction of construction costs usually result in a detraction from the value and quality of the imitation. A sense of relative value therefore needs to be understood. This is achieved by maintaining the historical continuity and the architectural character of a place which incorporates both the old and the new. Creating a contemporary structure which is aesthetically in harmony with the established heritage surroundings is an appropriate solution rather than copying the old.

### Who should protect

The question of 'who should protect' is concerned with agents responsible for cultural heritage protection. The agents involved in the heritage protection process comprise five groups, which are: (1) the professionals who include practicing planners, architects, historians, archaeologists and other relevant experts; (2) the policy-makers who are government officials from various backgrounds; (3) the private businesses who act as fund-raisers; (4) the non-profit groups who serve as pressure groups for community participation; and (5) the communities which consist of local inhabitants concerned with the heritage protection process. Each group has its own important

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<sup>41</sup> Jane Fawcett, 'A Restoration Tragedy : Cathedrals in the Eighteenth and Nineteenth Centuries', in ed. Jane Fawcett, op.cit., pp. 74-115.

<sup>42</sup> This includes the restructuring of Burano Island, the renewal of old Quartiere del Molo, and the restructuring of a street block in the ancient city centre of Turin. See : Massimo Dini, *Renzo Piano : Projects and Buildings 1964-1983*, Electa/Rizzoli, New York, 1983, pp. 172-9 & 200-3.

<sup>43</sup> Richards, op.cit., p. 36.

contribution to make towards the success of the process. Coordination among all these agents, however, needs to be fostered to ensure effectiveness.

Inhabitants of the designated areas act as both the "objects" and the "living subjects" of every heritage protection process, so that their active involvement in the process would be of the utmost importance. Their participation needs to be fostered, and their needs and aspirations need to be accommodated. A community-oriented approach, therefore, would be essential for the process of conserving places of heritage value. This, moreover, would be most appropriate for the conservation of traditional areas of the developing countries, such as Indonesia, where the public awareness of the value of the traditional environments is lacking. In these areas, the inhabitants are largely apathetic, prefer to remain silent and put the future of their dwellings to the hand of the policy-makers, experts, and fund-raiser businesses.

Community participation is an exploration of the social dimension through the understanding of the needs and aspirations of the local people concerned. Two-way communication between the policy-makers, experts, and fund-raiser businesses, on the one hand, and those people and the non-profit groups, on the other, should be fostered. A "grass-roots" approach, moreover, would be most appropriate, and direct communication through public meetings would be most effective. The role of the mass media would be of importance to generate public awareness, while providing a forum for the communication of the concerns and aspirations of the two sides.

Local community's involvement in the Bhaktapur Preservation Project for the Lalitpur and Bhaktapur medieval towns in Nepal is an example of an effective exploration of community participation. Local builders and artists were involved in the restoration of temples and palaces of the Kathmandu Valley, using local building technology and materials.<sup>44</sup> The Neighbourhood Workshops of Renzo Piano are examples of a creative exploration of community participation in ancient urban areas' rehabilitation. Direct involvement of architects and planners in the local community organisation is fostered, while at the same time participation of the people concerned in the design process is encouraged. Piano introduces socially acceptable and locally compatible contemporary technology and materials. His projects have been successful in economically and actively exploring the participation of future occupants.<sup>45</sup> Both the Bhaktapur Project and the Neighbourhood Workshops practise thorough analysis of the social dimension by taking account the real needs of the people.

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<sup>44</sup> See : Parajuli, op.cit.

<sup>45</sup> Dini, op.cit., p. 9-10.

According to Community Architecture Information Services (CAIS), community-oriented approach to heritage protection is different from conventional approaches. The difference is concerned with status of the local people; relationship between those people as users with the planners, architects, and historians as the experts; and the role of experts. It is also concerned with the scale, location, and use of the project, design style, technology and resources, end product, primary motivation, operation method, and ideology.<sup>46</sup>

In community-friendly approach, users are treated as clients rather than as passive recipients. This approach explores creative alliances and direct partnerships between users and experts rather than remote and indirect contacts. The experts act as facilitators or social entrepreneur educators, rather than as providers or neutral authorities. CAIS remarks that this approach is largely more effective for small-scale projects that are responsive and determined by the nature of the projects, rather than for large-scale ones that are cumbersome and determined by patterns of landownership or the need for efficient mass production and simple management. The location of the project is most likely to be urban, or on the periphery of an urban area, or on a derelict and decaying environment, rather than in fashionable or wealthy existing residential, commercial, and industrial areas. The use of the project is most likely to be multi-functional rather than a single function or a number of complementary functions.<sup>47</sup>

In community-oriented approach, the design style is not self-conscious; it is contextual, regional with concern for identity, often exuberant and highly decorative using local artists, rather than self-conscious and utilitarian using a fashionable and identifiable style. The technology and resources tend to be small-scale production and on-site construction, rather than mass production and prefabrication. The technology and resources also tend to explore user-friendly techniques and labour-and-time intensive techniques using local source of materials and reused and recycled materials, rather than machine-friendly techniques and machine-and-capital intensive techniques using global source of materials and new materials with "clean sweep" of used materials. The end product is flexible, slowly improving, easy to manage and maintain, and has low-energy consumption, rather than static, slowly deteriorating, hard to manage and maintain, and with high-energy consumption.<sup>48</sup>

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<sup>46</sup> Community Architecture Information Services, *Building Communities*, proceedings of the First International Conference on Community Architecture Planning and Design, CAIS, London, 1987.

<sup>47</sup> loc. cit.

<sup>48</sup> loc. cit.

The primary motivation of this approach is focussed on the improvement of the living quality of the inhabitants and better uses of local resources, rather than on the social welfare and partly political opportunism of the policy-makers and the esteem of professional peers for the experts. It is focussed on social investments, rather than on the return from short-term investment and the narrow self-interest of the private businesses. This motivation, moreover, emphasises response to specific local needs and opportunities, rather than to general national and regional gaps in market, social needs, and opportunities.<sup>49</sup>

The operation method of this community-friendly approach is bottom-up or "grass-roots" rather than top-down, with the emphasis on process rather than product. This method is flexible rather than bureaucratically strict. It is localised, holistic and multi disciplinary, rather than centralised, compartmentalised and specialistic. This method, moreover, is personal, familiar, people-oriented, setting precedents, and open, rather than impersonal, anonymous, paper-management-oriented, avoid setting a precedent, and secretive. The ideology of the community-oriented approach is pragmatic, humanitarian, responsive and flexible, promoting "small is beautiful", collaborative, and fostering mutual aid, rather than technocratic, totalitarian, doctrin-istic, promoting "big is beautiful", competitive, and promoting survival of the fittest.<sup>50</sup>

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<sup>49</sup> loc. cit.

<sup>50</sup> loc. cit.



## APPENDIX IV :

### Techniques of Heritage Conservation

#### Examination of Historic Context

The examination of historic context is a basic stage in the conservation process that leads to a consistent record of information relating to the identification, evaluation, registration and treatment of the resources. It is a method for determining the relative significance of cultural heritage resources. An understanding of the relative value of the resources is required for the establishment of priorities for their protection, the extent and nature of the treatment, as well as appropriate means for management decisions.<sup>35</sup>

According to Hamrick and Speulda, the examination of the historic context of a place can be carried out in four parts, which are: (1) broad themes approach; (2) specific themes approach; (3) resource types approach; and (4) geographical context approach.<sup>36</sup>

The assessment of broad themes requires a general study of each thematic topic of the history of a place. It results in information for determining developmental trends, influences and events. The discussion is very broad in scope, with a particular concern for broad topics of history, such as, in the case of Indonesia, 'The Spread of Islam'. The assessment includes preliminary identification and a brief description of the functional range of resource types. It also includes identification of research and survey needs and particular threats to the resource types, so that priorities for further treatments can be established.

The assessment of specific themes requires a detailed study of the historical development of a thematic topic of a place, which has recognisable chronological temporal

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<sup>35</sup> James Hamrick & Lou Ann Speulda, *Handbook to Historic Preservation Planning in Oregon*, Oregon State Historic Preservation Office, Salem, Oregon, 1989, pp. 3 & 13; Bernard M. Feilden, *Conservation of Historic Buildings*, Butterworths, London, 1982, p. 6.

<sup>36</sup> Hamrick & Speulda, op.cit., pp. 1-2.

and spatial boundaries. This assessment is focussed on a specific research topic, such as 'Islamic Settlement of Kudus, Indonesia'. This topic needs to be examined in more detail, such as 'Pre-Islamic Community', 'Early Islamic Community', and 'The Establishment of the Islamic Town'. Its particular concerns are the identification of associated resource types, the determination of character-defining features, and the determination of the range of variability of each resource type. Even though trends, influences, and events remain important considerations, the emphasis is on the description and evaluation of the resource types based on their authentic evidence. This assessment includes the identification of required treatments for the protection of the identified resource types.

The assessment of resource types requires a very specific and focussed study, such as the studies of 'Islamic Old Town of Kudus', 'Historic Residential Quarters of Kudus', 'Traditional Timber Houses of Kudus', 'Historic Mosques of Kudus', and 'Squares, Streets and Alleys of Old Kudus'. Such studies can only be properly carried out after assessment of the associated broad themes and specific themes is undertaken. The assessment explores the historical description, distribution, and character-defining features of a specific resource type, as well as the criteria for evaluation.

The assessment of geographical context is focussed on the spatial and structural development of an area, such as the study of 'An Historic Islamic District of Kudus'. The assessment is concerned particularly with the range and distribution of existing resource types in an area, so that the evolution of its spatial formation can be identified, and the boundaries can be determined. This assessment also explores historical themes which have played important roles in the area, and identifies resource types representative of these themes. It includes the description, distribution, character-defining features, and degrees of significance of the resource types, as well as the criteria for evaluation. This assessment may be the most comprehensive, because it embraces the other three approaches.

Each approach to historic context contains information of: (1) the important dates of introduction, peak, or demise of the themes, resource types, and geographical areas; (2) people who contributed to the development of the themes, both individuals and ethnic groups; (3) related topics influence the themes, either positively or negatively; and (4) resources associated with the theme, both the best and the worst examples.

The preparation of the examination of historic context follows a logical sequence. First, the definition of limiting factors of the study and the preparation of an historical summary. This phase provides information regarding important historical trends,

influences, events, distribution of the resource types, and related research topics. Second, the identification of the resource types according to the level of historic context, either brief and general for broad theme studies or detailed and specific for resource type studies. This phase determines the importance, conditions, and ranges of variation of the heritage resources. Third, the evaluation of the resource types by combining and analysing information from the historical summary, as well as the identification of data, including the determination of the resources' integrity, the identification of threats, and the assessment of the character-defining features of the resources. This phase presents a list of registered properties related to the themes. Finally, the treatment of the heritage resources, ranked in order of priority, to achieve both cultural heritage protection and development planning objectives.<sup>37</sup>

Tangible properties developed in a geographical area play an important role in the understanding of historic context. The format of historic context, therefore, needs to include graphic information indicating the chronological development of the built environment. A series of appropriate figure-ground maps indicating the development of the built environment at certain period needs to be prepared.<sup>38</sup> Such historical development plans can present a strong physical image of the area, and communicate the dynamic nature of the evolution of the spatial formations. The plans, moreover, graphically indicate changing patterns of property and land uses over time, which may reveal aspects of the cultural history of the area.

### **Assessment of Cultural Significance**

The assessment of the cultural significance of places of heritage value is another basic stage in the conservation process. The assessment should be based on sufficient understanding of the historic context, physical character, as well as the existing fabric and setting of the place. Otherwise, it may fall into a kind of misjudgment, either timorous, inarticulate, moralistic, indiscriminate, egotistic, slothful, or muddled judgement.<sup>39</sup>

The assessment of cultural significance needs to be well documented, specifying qualities and values of the places at the time of designation. Such a document is of the utmost importance as a basis for decision-making regarding the future of the

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<sup>37</sup> *ibid.*, pp. 13-4.

<sup>38</sup> Dunn Associates, *Character Analysis as a Method for Urban Design*, Burlington, Vermont, undated (?1991).

<sup>39</sup> James Semple Kerr, 'The Assessment of Cultural Significance', in *Building Conservation in Australia*, eds. Peter Freeman, Eric Martin & John Dean, RAlA Education Division, Canberra, 1985, p. 30.

places, particularly when a conflict occurs concerning their protection, enhancement, and new development. The document, therefore, should also set out possible ways of retaining the cultural significance and architectural character of the places, while at the same time accommodating future needs. This document needs to be published and made readily available as a source of reference for new development which may occur on the sites, ensuring that such development accords with the existing significance and character.

The investigation of the cultural significance of a place requires collection of all information relevant to the place and its fabric, assessment of the information, and the establishment of a statement of the significance. The assessment considers not only the principal significance, but also all other aspects having lesser degrees of significance. This results in the presentation of conclusions and the identification of unresolved aspects. The assessment, moreover, identifies urgent problems endangering the place and the required treatments to ensure stability and security. A succinct statement of significance expressing the value of the place subsequently follows the assessment.<sup>40</sup>

As the validity of the judgement depends upon the thoroughness of the physical or documentary evidence and the reasoning applied to them, the information collected should be thorough and comprehensive. This information, which seems to emphasise fabric and physical setting of places, has been identified in the Burra Charter as follows:

- (1) sequential developments of the place and its fabric;
- (2) existence and nature of lost or obliterated fabric;
- (3) rarity and/or technical interest of all or any part of the place;
- (4) functions of the place and its parts;
- (5) relationship of the place and its parts with its settings;
- (6) cultural influences which have affected the place and its fabric;
- (7) historical content of the place, considering that its fabric has been influenced by historical forces or has itself influenced the course of history;
- (8) scientific or research potential of the place; and
- (9) relationships of the place to other places in terms of design, technology, uses, and locality or origin.<sup>41</sup>

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<sup>40</sup> Australia ICOMOS, *The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter)*, 1988, n.p.

<sup>41</sup> loc. cit.

Information comprising people-oriented factors needs to be incorporated. Such information embodies the symbolic content and spiritual meaning of the place to the people. A place can be a representative of community aspirations and pride. The community may believe the place is a sacred home of their deities or a commemoration of their ancestors. The information, therefore, should include the significance of the place to people who use or have used the place, or descendants of such people, as well as to the general public.

The information is assessed from a basic set of criteria to formulate statement of cultural significance of the place. Criteria of cultural significance established in the Burra Charter: historic, aesthetic, social and scientific, can be used as a basis. The criteria used in each case, however, may vary, as each place presents different conditions of fabric, contains different values to the community, and has different problems endangering its integrity. More precise and well-defined criteria applied to each case, therefore, need to be formulated, though they may still be under the umbrella-terms of those of the Burra Charter. It should be noted, that places are usually significant in a combination of more than one criterion and in varying degrees.

A few examples of criteria for cultural significance assessment have been formulated and adopted in various places. For instance, a place is largely of significance if it:

- (1) represents technical creativity;
- (2) possesses architectural and engineering quality, or displays particular building methods;
- (3) expresses a particular way of life, custom, process, or function;
- (4) is about to be lost;
- (5) serves as a representative of public esteem;
- (6) has association with an important figure;
- (7) presents townscape and landscape value;
- (8) is sympathetic to its neighbours in terms of scale and design; and
- (9) makes a contribution to its surroundings and, in turn, reflects the contribution made by its surroundings.<sup>42</sup>

A list of other examples of the criteria is as follows:

**National Register of the United States of America.** The National Register of the United States of America, which covers only the cultural or man-made heritage, and

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<sup>42</sup> HJM Consultants, *Preparing an Inventory of Heritage Resources*, a paper prepared for the PATA Foundation, PATA Foundation Heritage Conservation Series Vol.1, Canberra, 1991, p. 7.

not the natural, formulates the criteria as significance of a place in the fields of history, architecture, archaeology, engineering, and culture.<sup>43</sup> The scope comprises a wide range of places: natural areas, towns and villages, skylines, districts, neighbourhoods, streetscapes, sites, buildings, structures, fragments and objects.<sup>44</sup> The criteria for assessing the significance of a place include :

- (1) aesthetic quality: a high quality of setting, design, materials, and craftskill;
- (2) typicality: a representative of a particular class or type;
- (3) scarcity : one-of-a-kind or the last remaining examples of a type;
- (4) historical role : expressions of feelings and associations for being the sites of significant events or the domiciles of important figures;
- (5) capacity to enhance an adjacent area : potential to arrest deterioration and encourage improvement of nearby areas;
- (6) superlativeness : superlative quality.<sup>45</sup>

**Register of Historical and Cultural Monuments of the People of the USSR.**<sup>46</sup> A set of criteria adopted by the Register of Historical and Cultural Monuments of the People of the USSR, which apparently covers only monumental man-made heritage, is another example. The Register formulates the criteria as significance of a place in the fields of archaeology, history, architecture, and art. The scope comprises stationary monuments, such as monumental buildings and sculptural structures, having international, national, or local significance. The criteria include the significance of such monuments in exhibiting artistic, historical, or scholarly value.

**National Trust of Australia in Tasmania.**<sup>47</sup> The National Trust of Australia in Tasmania considers places of heritage value to comprise both the man-made and natural environments. For them, the places include all types of buildings from backyard sheds to town halls, all types of structures from mine shafts to bridges, highways, and railways, all types of street furniture, gardens, parks, both agricultural and industrial landscapes, groups of buildings, villages, urban areas, archaeological remains and sites, as well as natural landscapes of scenic beauty and scientific interest. The criteria for assessing the significance include:

- (1) historical importance: association with important people or events;
- (2) aesthetic quality: artistic design, materials, architectural detail and craftskill quality;

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<sup>43</sup> *ibid.*, p.9.

<sup>44</sup> Wayne O. Attoe, 'Historic Preservation', in *Introduction to Urban Planning*, eds. Anthony J. Catanese & James C. Snyder, McGraw-Hill, New York, 1979, pp. 304-9.

<sup>45</sup> *ibid.*, pp. 309-313.

<sup>46</sup> HJM Consultants, *op.cit.*, p. 10.

<sup>47</sup> Michael Court, 'The Scope of the National Heritage and Some Aspects of Its Classification', in *Newsletter 64*, National Trust of Australia in Tasmania, December 1979, pp. 4-9.

- (3) stylistic significance: capacity as a pure example of a particular style;
- (4) evolutionary importance: capacity as an example of accretions of styles or forms and adaptations of changing social and economic circumstances over time, or as an example of primitive, obsolete, or emergent construction techniques and materials;
- (5) vernacular importance: capacity to reveal unconscious processes of creation and response to local circumstances;
- (6) typicality: capacity as an excellent example of a type, or alternatively, an unusual variation to the normal standards for such type;
- (7) ageing: expression of patina or natural intrinsic maturing of the material itself which gives depth and richness to the appearance, as well as evidence of natural weathering and human usage;
- (8) townscape importance: capacity as a key element in the townscape which forms an integral part of the visual unity and historical continuity of the urban setting;
- (9) industrial archaeological importance: evidence of processes developed in human life, including industry, agriculture, engineering, transport, and mining;
- (10) social significance: representative of sociological needs, customs, or aspirations no longer extant;
- (11) physical quality: expression of specific physical presence contributing to the surroundings in terms of size, scale, opulence, and choice of site;
- (12) authenticity and intactness: completeness of all constituent parts;
- (13) local significance: expression of history, social customs, or technology developed in a particular region which does not occur in other regions;
- (14) rarity: an example of a comparatively rare type important as evidence of history.

**Historic Buildings Council of Victoria, Australia.** The Historic Buildings Council of Victoria-Australia formulates a similar set of criteria, the focus of which is on buildings. For them, a building is of significance for two main reasons: (1) it demonstrates creative and/or technical accomplishment in the history of architecture; and (2) represents strong historical associations.<sup>48</sup>

The former implies that a building is of 'architectural significance' if it:

- is a representative or extraordinary example of particular architectural style;
- is influential in the development of architectural style, building technology, and construction techniques, or a demonstration of new and innovative solutions to user requirements;

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<sup>48</sup> The Historic Buildings Council (Vic.), *Register of Historic Buildings*, The Historic Buildings Council Victoria, Melbourne, Vic., 1990, n.p.

- is influential in the development of aesthetic theories and architectural design philosophy in a particular period;
- is a transient or permanent influence upon the development of local architectural traditions;
- demonstrates typical or outstanding craftskill in building construction or decoration;
- demonstrates a representative or notable application of decorative schemes or particular materials in construction and design;
- is a representative or extraordinary example of an architect's work;
- is a representative or extraordinary example of a building type;
- demonstrates a changing sequence of architectural styles, patterns of occupancy and function;
- is an essential intact and rare example of a building type.

The latter implies that a building is of 'historical importance' if it:

- represents or is an extraordinary example of a way of life, custom, process, or function;
- has a strong association with an important figure or figures, cultural groups or events;
- represents a sequence of usages or functions over time;
- is of considerable age in particular circumstances where the precise historical significance of the building is not at present known.

Even though the criteria focus on buildings, they directly affect the designation of areas of special significance, such as the case of Melbourne Metropolitan Planning Scheme. The assessment of buildings of architectural and historic significance has led to the identification of culturally significant residential, commercial, and industrial areas, as well as major parks and boulevards.<sup>49</sup>

**National Trust of Australia in New South Wales.**<sup>50</sup> The National Trust of Australia in New South Wales adopts another set of criteria. For them, a place is of cultural significance if:

- it has a high degree of technical and/or creative excellence;
- it demonstrates a way of life, taste, custom, process, or function of particular interest;

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<sup>49</sup> See: Ministry of Planning and Environment in Victoria, *Urban Conservation Areas*, Melbourne, Vic., 1986, n.p.

<sup>50</sup> James Semple Kerr, *The Conservation Plan : A guide to the preparation of conservation plans for places of European cultural significance*, National Trust of Australia in NSW Publications, Sydney, 1982, pp. 4-6.



- it has a strong association with an important figure, physical development, or cultural phase;
- it has landscape, townscape, or environmental value.

Regarding the first and second criteria, the place should be a particularly fine example of its type, or it was an important prototype which influenced later developments, or it is the only known or the only reasonable intact example in the area, or it is one of a group the totality of which is important to the area. In relation to the fourth criterion, the place should have a considerable degree of unity in its materials, form, and scale, or, it is enhanced by its setting and, in turn, contributes to its setting.

**HJM Consultants, Canberra.**<sup>51</sup> HJM Consultants, a Canberra-based consultancy firm, suggests that significant places should include both cultural and natural environments, so that the criteria for assessing their significance should consider both cultural and natural values. A place is therefore of significance if:

- it demonstrates the evolution or pattern of a country's history, both cultural and natural; this includes close association with significant historic events, as well as evolution of unusual richness of landscapes, flora and fauna;
- it demonstrates rare, uncommon, or endangered aspects of a country's cultural and natural history; this includes presentation of ways of life, social customs, religious rites, industrial processes, and land use divisions which are no longer practised, are in danger of being lost, or are of exceptional interest, and includes rare, uncommon, or endangered landscapes, flora and fauna;
- it has the potential to yield information that will contribute to a better understanding of a country's cultural and natural history; this includes both heritage areas, structures, archaeological deposits and natural areas which make a contribution to the knowledge of the past;
- it demonstrates characteristics of a broader class of cultural and natural places, either individual entities or entire environments; this includes notable examples or types which foster an understanding of the wider range of places they represent;
- it exhibits particular aesthetic characteristics valued by the community or by a cultural or religious group; this includes expressions of beauty or formal design which can be judged by canons of taste or is highly regarded by informed sectors of the community;
- it demonstrates a high degree of creative or technical achievement; this includes expressions of quality and originality of design innovation, technological breakthroughs, or other new achievements of certain time periods;

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<sup>51</sup> HJM Consultants, op.cit, pp. 11-4.

- it has strong or special meanings for a community or a cultural group, because of social, cultural, symbolic, religious, and spiritual associations; this, in some instances, may be folkloric and legendaric, rather than realistic associations;
- it has a special associations with the life or work of a person, group, or organisation of importance in the country's history; this includes the residence, the workplace and the creative product of such a person.

## **Inventory of Places of Heritage Value**

An inventory needs to be established in conjunction with the assessment of cultural significance, to provide a basis for the conservation of places of heritage value. The inventory incorporates a list of the identified culturally significant places and the statements of their significance. Such a document provides essential information of the heritage places, as well as the mechanism for their protection, so that it is a prerequisite for any conservation process.

The inventory of places of heritage value serves as a basic source of reference for achieving conservation objectives by both maximising the heritage protection and optimising the enhancement benefits. It can also be used to achieve educational objectives, because an inventory provides educational tools in the form of a collection of scientific or scholarly information. The inventory can be explored to achieve community development planning objectives for it provides comprehensive information needed for both physical, commercial, and social planning. It can also be used to achieve cultural objectives for it serves as a vehicle to foster a sense of local, regional, or even national identity. The inventory, moreover, can be means to achieve wider recognition, both national and international, for it can be presented as a published catalogue for promoting the culturally significant places.

Inventory is carried out through a survey programme. In the case of a general inventory which covers a vast area, the survey programme can be structured geographically by dividing the area into regions, so that it can be conducted on each region. The programme can also be structured thematically by identifying a number of historical themes, so that the theme can be researched in detail across all the regions. Theoretically, either way should eventually lead to a comprehensive inventory. Yet, in practice, neither way is perfect. The geographical model, however, appears to be more efficient in the way that it enables prediction and control of the size of each section of the survey programme. It also allows an intensive use of resources con-

centrated in the most critical region. Additional theme-based surveys can then be carried out as a subsequent stage.<sup>52</sup>

Techniques employed in the inventory are research of the archival evidence, recording of the physical evidence, and documentation of both. This includes research of written and oral history, documentary evidence, and computerised database, if any, site inspection, site and building measurement, field sketches, photography, aerial photography, archaeological investigation, photogrammetry, measured drawings.

Inventory of culturally significant places may fall into three categories -- preliminary, detailed and critical -- based on thoroughness of the information and geographical scope of the places. The first provides basic information of all the places identified as representative of the themes discussed in the examination of the historic context of the area. The second provides more detailed information of the significant places resulted from the assessment of cultural significance of the identified places. The third provides the most detailed information, comprising the most critical places requiring immediate protection. The amount of detail required in an inventory, however, may vary from case to case. It can be adjusted to achieve the objectives and to suit the existing resources of each case.

**Preliminary inventory.** Preliminary inventory can be undertaken through a "wind-screen survey" and a compilation of general information from any reliable sources.<sup>53</sup> The scope includes all places representative of the themes identified in the examination of the historic context of the area. Even though the format of the inventory may vary, it concentrates on the basic physical information of the places, including primarily, identification of the names and description of the locations. Other primary information includes approximate area of the place, a brief description of distinct forms or styles, and current uses. This inventory results in a preliminary list containing brief written information and a sketch or a photograph which best describes the basic exterior condition of each place.

**Detailed inventory.** Detailed inventory requires thorough research of the places listed on the preliminary inventory. The format of the inventory, which may vary from case to case, should contain essential information of the places, including general description of the places, explanation of the significance, historical summary, as

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<sup>52</sup> *ibid*, pp. 24-5.

<sup>53</sup> "Windscreen survey", or "windshield survey" in American and Canadian term, is a superficial observation that can be carried out by a tourist from a window of a motor vehicle. See : G.A. Wilkes, ed., *The Collins English Dictionary, Australian Edn.*, 2nd.edn., Sydney, 1986, p. 1738.

well as identification of both existing and possible threats to the places. The general description includes the location, current and former names of the place, address, ownerships, buildings and their surroundings, boundaries of the property, a reference map, and a sketch of the site plan of each place. The explanation of the significance includes the conclusion of the assessment, suggested classification or degree of the significance, and a brief statement of the cultural significance. Previous heritage assessment or classification should be noted if any. The historical data consist of dates or approximate dates of construction or formation, names of persons responsible for the design and construction, and the subsequent phases of the development of the place. Sources of the information should be noted wherever possible. The existing or possible threats to the place include integrity of the place in its setting, current stability and security of the existing fabric, natural and cultural influences which may lead to the obliteration of the fabric, and capability of the place and its fabric in meeting future needs of the users. This inventory contains a detailed record of the places, statement of their degree of significance, and identification of priorities for immediate protection.

**Critical inventory.** Critical inventory requires thorough research, recording, and detailed documentation. This inventory comprises detailed graphic documentation, such as photographs, sketches, and measured drawings, along with all the information stated in the former inventories. The photographic documentation includes aerial photographs of the setting or overall landscape of the area, ground photographs of the streetscapes, the exterior and interior of the buildings, as well as of architectural and structural features and ornamentation. The measured drawings include maps of the area, the site plans, plans, elevations, and sections of the buildings, their surroundings, and significant public open spaces, as well as a number of significant architectural and structural details and ornaments. The critical inventory provides an invaluable source of reference for the immediate protection of the places. Such a detailed record serves as a body of data in the case where an inevitable intervention takes place or physical protection is impossible. It also records evidence, which will be required when a dispute over the places occurs regarding their future adaptation or enhancement.

### **Process of Heritage Conservation**

The terminology used for the process of heritage protection often varies and overlaps, so that it needs to be clarified. In Australia, as is suggested by the Burra Charter, the term 'conservation of places of cultural significance' is used encompassing a wide concept of place. In Britain and apparently also in other European coun-

tries, 'heritage conservation' is the umbrella-term, while the term historic preservation refers more specifically to historically-significant buildings.<sup>54</sup> In the United States, conversely, 'historic preservation' is the umbrella-term, encompassing a wide variety of processes for the protection of buildings and urban settings.<sup>55</sup> The definitions and practice of the process of heritage protection used in Australia also differ from those used in the United States.

In Australia<sup>56</sup>, the **Burra Charter** defines the process of heritage conservation as all the activities of looking after a place to retain its cultural significance. It uses the terms of preservation, restoration, reconstruction, and adaptation, explained as follows:

**Preservation.** Preservation means the process of maintaining the fabric of a place in its existing state and retarding deterioration. It involves maintenance, which means the continuous protective care of the fabric, contents, and setting of a place. This process is most appropriate for two conditions: if the existing state of the fabric itself constitutes evidence of particular significance, or if sufficient evidence is unavailable to allow the carrying out of other conservation process. The technique is limited to the protection, maintenance, and stabilisation of the existing fabric.

**Restoration.** Restoration means the process of returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material. It involves repair in the sense of returning dislodged parts to their original position, which is to be distinguished from maintenance. This process is most appropriate for one condition: if sufficient physical and documentary evidence of an earlier state of the fabric is available and if the returning of the fabric to that particular state reveals anew the cultural significance of the place. It should stop at the point where conjecture begins, for this will result in distortion of the significance. The technique is limited to the reassembling of displaced parts or removal of insignificant accretions. It should be noted that the contribution made by differing periods presents historical continuity, so that revealing the fabric of a particular period at the expense of another can only be justified when that which is removed is of slight significance and that which is revealed is of much greater worth.

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<sup>54</sup> Attoe, *op.cit.*, p. 298.

<sup>55</sup> *loc. cit.*

<sup>56</sup> Australia ICOMOS, 1988, *op.cit.*, n.p.

**Reconstruction.** Reconstruction means the process of returning a place nearly to a known earlier state by removing accretions or by reassembling existing components with the introduction of both old and new materials. It involves repair in the sense of the replacement of decayed parts, which is to be distinguished from maintenance, yet should not be confused with either re-creation or conjectural reconstruction. This process is most appropriate if a place is incomplete due to damage or unsympathetic alteration, so that the reconstruction is necessary for its survival or for revealing the significance of the place as a whole. The techniques should be based on the concept of 'completion of an ensemble' (*anastylosis*). It is limited to the completion of a depleted entity and should not constitute the majority of the fabric. It is also limited to the reproduction of fabric, the form of which is known from physical and documentary evidence. The use of new material should be limited, provided that such introduction is necessary for the stability and security of the place, as well as accords with the significance. This, moreover, should be identifiable on close inspection as being new work.

**Adaptation.** Adaptation means the process of modifying a place to suit proposed compatible uses. Such a use should involve no change to the culturally significant fabric. In the case where changes are inevitable, these changes should result in a minimal impact and should be substantially reversible. Adaptation is most acceptable if it is the only way to conserve the place, provided that such a process does not substantially detract from the significance. The technique of modification is limited to that which is essential with a compatible use for the place determined by an understanding of its cultural significance. Any significant fabric unavoidably removed in the process must be kept safely to enable its future reinstatement, and that which is altered must be previously recorded to enable future reversal.

In the United States<sup>57</sup>, the process of historic preservation or heritage conservation uses the terms of restoration, rehabilitation and renovation, adaptive use, conservation, replication, imitation, and relocation, explained as follows:

**Restoration.** Restoration is the most conservative process, which means the process of returning buildings to their original condition in a particular earlier time. Such a process includes the replacement of features that have been destroyed, removal of those that have been added, and correction of those that have been al-

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<sup>57</sup> Attoe, op.cit., pp. 298-302.

tered. Three fundamental decisions may be required in such a process: (1) the decision on the period to which buildings are to be retained; (2) the decision on the correct choice of building features to be restored; and (3) the decision on the modification of existing and the introduction of new utilities and services, to meet the needs of present ways of life of the users. The third is concerned with compatibility of the buildings' earlier condition, along with necessary amenities needed to be incorporated, i.e. water supply, electricity, sewerage, natural lighting, air conditioning, access of motor vehicles, and sufficient parking. Restoration processes have been undertaken to create museums, both of building-scale, such as house-museums, and of community-scale, such as open-air museums. Two obstacles, however, usually hinder such a museum approach: authenticity and cost.

**Rehabilitation and renovation.** Rehabilitation and renovation are the processes of making decayed buildings suable again. These processes allow more flexibility about historical accuracy than does strict restoration. They are based on a consideration that standards of living, patterns of housing, commerce, and work, tend to change, so that buildings must be adapted to the changing needs. However, both historical continuity and a tangible sense of place also need to be retained. The process employs differing techniques, such as different treatments of interior and exterior, to achieve the apparently contradictory objectives. As the interior is changed to accommodate contemporary requirements for comfort, safety, and utility, the exterior is left in the original condition to contribute to the existing character of the urban setting.

**Adaptive use.** Adaptive use means the conversion of the uses of buildings to suit new purposes, while maintaining their original form and character. This process is most appropriate if the buildings have become redundant. Adaptive use often involves rehabilitation and renovation.

**Conservation.** Conservation, as the term is used in the United States, is not so concerned with the past. It means the process of protecting the present, while at the same time directing change in the future. The scope, therefore, concentrates more on urban environments, rather than individual buildings. The objectives are both physical and social, incorporating the protection of existing fabric and character and the stabilisation of population and the contemporary way of life of the community. The process is most appropriate for an urban environment that has not much changed physically, while having proved to be continuously habit-

able. In such a case, it is desirable that the urban environment remains unchanged and protected from destructive external pressures and incompatible uses.

**Replication.** Replication means the process of new construction by strictly copying a previously existing structure. This process is not widely used at urban scale, but can be most appropriate for particular situations, such as in circumstances of utter destruction. Such a process makes sense if the urban environment has a symbolic significance, the urban fabric was exemplary, or if the town's economy is dependent upon tourism. The exteriors of the replicas are usually authentic reproductions, while the interiors are altered to accommodate contemporary standards of comfort and safety.

**Imitation.** Imitation means the process of new construction by copying the significant features of nearby buildings, so that the new building will not be obtrusive. It is in sympathy with the spirit of place, not a strict copy. The features imitated include height, massing, setbacks, overall dimensions, materials, fenestration, colours, and style. This process is most appropriate if it is necessary to fill in gaps between existing buildings within an historic district that has a particular character.

**Relocation or translocation.** Relocation or translocation, means the process of moving structures, either whole facades or whole buildings, from one location to another, either from one site within a protected area to another or from an unprotected area into a protected one. Relocation is often carried out for economic reasons, because purchasing a used structure and moving it may be less expensive than constructing a new one. This is often undertaken for aesthetic reasons as an effort to create a coherent physical setting. The accumulation of a group of buildings of similar character and style on a particular place can create a sense of unified place. This can be carried out through removal of buildings from redevelopment areas to vacant lots that are located near existing buildings of similar character and style. The use of "authentic" materials to become a neighbourhood of a particular character creates the unity. The removal of significant buildings which hinder development projects necessary for the rehabilitation of an historic centre seems to be a naive attempt to facilitate the intervention while "saving" the threatened buildings. The obstacle to such a relocation is authenticity of the site and the setting.<sup>58</sup>

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<sup>58</sup> Also see : Papageorgiou, op.cit., pp. 136-7.



Reconstruction is not included in the process of heritage protection in the United States. The processes of replication and imitation, however, apparently incorporate the concept of reconstruction. In this case, reconstruction falls into three categories: (1) "historicising" reconstruction, in which a perfect replica of an historic building, but a fake historical evidence, is produced; (2) harmonic integration, in which a demolished building is replaced by a contemporary structure using new materials but in the same spirit as the former; and (3) harmonic contrast, in which the contemporary structure uses both new materials and disparate architectural morphology, but fits with the general scale, height, proportion, and layout with the buildings in its historic urban setting.<sup>59</sup> The first category is the same as replication while the second is imitation. The third, which produces a contrast by the juxtaposition of disparate styles and materials, is not visually offensive. On the contrary, it has a positive psychological effect that enables the viewer to compare the artistic achievements of different historical periods.

Re-creation, replication, imitation and relocation are not included in or accepted by the Burra Charter. The conservation processes suggested by the Burra Charter seems to be very much fabric-oriented. In such an approach, the attempt to retain the cultural significance seems to be emphasised more on the care of fabric, setting, and physical evidence rather than on the maintenance of symbolic significance or spiritual meaning. The preservation of symbolic significance or spiritual meaning, therefore, makes sense only if it is sufficiently supported by authentic fabric and setting. The processes of re-creation, replication, imitation, and relocation are therefore considered as no more than copies and falsifications of the authentic fabric and setting of a place.

In some cases, however, a conservation process can be meaning-oriented, relying more on symbolic and spiritual significance than on authenticity of fabric and setting. The processes of re-creation, replication, imitation, and relocation may thus make sense in places which have a high capacity to be symbols, or, are about-to-be-lost educational resources. Such an apparently copying or falsifying process is acceptable if: the symbolic significance of the place has to be preserved due to its strong spiritual attachment for the inhabitants, or the revival of the place is the only way to facilitate its survival for educational purposes.

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<sup>59</sup> *ibid.*, p. 105.

## **Physical Process in Heritage Conservation**

### **General Measures**

Apart from measures to prevent the dangers of fire and vandalism, the physical process of heritage conservation concentrates on measures to fight the agents of deterioration that lead primarily to the prolongation of the life of cultural heritage resources for their utilisation now and in the future. Generally, the causes of decay in materials and structure comprise gravity or earthquake, human action, diverse climatic factors, and diverse environmental factors, including botanical, biological, microbiological, chemical, and entomological causes.<sup>60</sup>

Despite similarities of purpose and methods, as well as of vulnerability to the danger of fire and vandalism, measures of architectural conservation are fundamentally different to that of arts conservation. The differences include : (1) that architectural work involves site, setting, and open physical environment, so that it is concerned with the effects of time and weather on materials in an external environment and uncontrollable climate, whereas art work can rely entirely on a controlled environment; (2) that the scale, size, and complexity of architectural work is much greater than art conservation; (3) that architectural works require a multi-disciplinary team involving contractors, technicians, and craftsmen, whereas treatment of art work can rely merely on art conservators; and (4) that architectural fabric acts as a structure resisting dead and live loadings, provides a habitable internal environment, whereas art work acts as an object of artistic or archaeological interest.<sup>61</sup>

A strong ethical approach is considered essential for physical interventions in the conservation process. Feilden states that : (1) prior to any intervention, the condition of the building, as well as all methods and materials used during treatment must be fully documented; (2) historic evidence must not be destroyed, falsified, or removed; (3) any intervention must be the minimum necessary; and (4) any intervention must respect the aesthetic, historical, and physical integrity of the property. Such an approach implies that the minimum but essentially effective action is always the best, so that the physical measures should allow the maximum amount of existing material to be retained. The measures, moreover, should be reversible if technically possible, not to prejudice possible future interventions, and not to hinder the possibility of later access to all evidence incorporated in the fabric. If additional materials are

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<sup>60</sup> Feilden, *op.cit.*, p. 2.; Piero Sanpaulesi, 'Factors Contributing to the Deterioration of Monuments', in Unesco, 1972, *op.cit.*, pp. 109-147.

<sup>61</sup> Feilden, *op.cit.*, pp. 3 & 6.

necessary, they should be harmonious in colour, tone, texture, form, and scale, and be less noticeable than the original while at the same time being identifiable.<sup>62</sup>

A competent conservation-architect, who serves as both a generalist and a coordinator, is an important agent in the undertaking of physical interventions in the conservation process. A multi-disciplinary team with various areas of knowledge and skills, however, is essentially required. In addition to general architecture, the team should possess knowledge and skill in early and traditional building technology as the basis for the identification and interpretation of the original fabric and later additions.<sup>63</sup> This should include knowledge of original building materials, particularly the methods of manufacture, the sources and extraction methods of raw materials, and the nature and causes of their deterioration.<sup>64</sup> The application of new conservation technology and scientific laboratory methods is most beneficial. This includes new archaeological techniques for analysing site evidence, computer technology for record and retrieval of information, chemistry for spectrographic analysis, radio-carbon dating and resistivity analysis, and photogrammetry for solving problems of recording and producing accurate dimensional drawings.<sup>65</sup>

The availability of craftspersons skilled in building is another important factor. The skill requires an understanding of the history and technology of the craft as the basis for analysing the method of production of historic works.<sup>66</sup> Such methods are the basis for the undertaking of compatible repair and maintenance, as well as reproduction wherever necessary. An understanding of the causes of building decay and the skill for special conservation techniques is also of prime importance.

### Treatment of Timber Buildings

Structures made up of organic materials, such as timber, require particular physical measures. Even though, due to the non-rigid structural system, timber structures are relatively more resistant to wind and earthquakes, they are more vulnerable to other agents of decay compared to structures of relatively stable inorganic materials like stone and brick. Environmental agents such as bacteria, fungi, and insects cause rot and decomposition, while climatic agents like moisture from rain, damp, and air

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<sup>62</sup> *ibid.*, p. 6.

<sup>63</sup> *ibid.*, p. 12.

<sup>64</sup> Martin E. Weaver, with contributions by F.G. Matero, *Conserving Buildings : Guide to Techniques and Materials*, John Wiley & Sons, New York, 1993, p. 12.

<sup>65</sup> Feilden, *op.cit.*, p. 13-7; Hans Foramitti, 'Classical and Photogrammetric Methods Used in Surveying Architectural Monuments', in Unesco, 1972, *op.cit.*, pp. 67-108.

<sup>66</sup> Feilden, *op.cit.*, p. 17.

humidity result in swelling, shrinking, and cracking. Man-made agents, particularly fire, moreover, are the most powerful source of destruction.

According to Weaver, the primary deterioration agents of timber in heritage buildings largely fall into two categories : (1) physical deterioration resulting from physical, chemical, and mechanical factors; and (2) bio deterioration resulting from bacteria, fungi, moulds, "bluestains", insects, borers, plants, and animals.<sup>67</sup>

Factors causing physical deterioration in timber buildings include : (1) growth-related defects in the wood itself; (2) problems related to the seasoning or drying processes; (3) problems related to the conversion process from the log to the dimensioned timber; (4) loss of strength due to high moisture content in the wood; (5) problems related to the failure of the wood fibres under load or stresses induced by excessive or rapid shrinkage and related to shrinkage where the wood is restrained; (6) abrasion or wear from foot and vehicular traffic or work processes, from wind-blown dusts, sands, and gravels, from water abrasion, animals chewing or tearing, and from repeated wear of hardware; (7) photo degradation of wood surface caused by exposure to sunlight and ultraviolet radiation; (8) thermal degradation of wood caused by exposure to elevated temperatures for prolonged periods; (9) damage resulting from repeated cycles of expansion related to hydration and dehydration of crystals of water-soluble salts deposited in the wood; (10) chemical degradation or hydrolysis resulting from concentrated acids or alkalis; (11) problems related to inadequacies in the original structural design, or caused by the failure of original structural elements; (12) problems related to the original weathering details; (13) problems related to structural inadequacies resulting from later alterations to original designs involving the removal of elements or parts of elements; and (14) problems related to structural inadequacies resulting from changes in loading and additions to the original structure.<sup>68</sup>

Bacteria cause deterioration for they destroy membranes of the wood cells which then leads to water penetration to the open cell structure, resulting in wood becoming waterlogged and liable to further degradation. Fungi, moulds, and bluestains cause fungal decay which takes place in several conditions, including : (1) a source of infestation, such as fungal spores and hyphae; (2) a suitable food supply, particularly non-toxic wood and cellulose; (3) sufficient moisture to permit spores to germinate and then for the fungi to develop; (4) a source of air; and (5) a temperature suitable for fungal growth, optimally 25 - 32° C.

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<sup>67</sup> "Bluestains" is called so due to the predominant colour of the affected wood.

<sup>68</sup> Weaver, *op.cit.*, pp. 20-3.

The types of fungi include white rot, brown rot, soft rot, and black or cellar or wet rot. Moulds are types of fungi which are visible as coloured powdery deposits on the surface of the wood. They signal high moisture content in the wood and that a more damaging attack of other fungi could occur. Bluestains discolour sapwood of soft-woods and cause more deep seated stains, which have no significant effect on the strength of the wood but may increase permeability and reduce toughness. A wide range of insect species attack and destroy timber structure by boring or chewing the wood. They include beetles, carpenter ants, termites, wood wasps, and carpenter bees. Plants damage wood by discolouration, by retaining moisture or preventing drying, by abrasion, and by prying and splitting. They include algae as a sign of high humidity and moisture content, lichens as algae and moisture retaining, mosses as lichens, small plants as lichens and mosses, as well as bushes, shrubs, and trees as moisture retainers and agents of mechanical damage. Animals also damage wood, such as rodents and small mammals by chewing the wood, certain species of birds by boring, and large mammals, particularly horses, buffalos and cows, by cribbing, scratching, excessive rubbing, biting and licking.<sup>69</sup>

The physical conservation process of vulnerable timber structures can be carried out through : (1) maintenance; (2) partial dismantling and reassembling; (3) complete dismantling and reassembling; (4) sheltering; and (5) periodical reconstruction. Maintenance includes regular inspection and cleaning that can be carried out using both traditional organic materials and chemical preservatives. If major bio deterioration occurs, the maintenance may require the using of both organic and chemical fungicides, insecticides, and pesticides.<sup>70</sup> Partial dismantling and reassembling is carried out if particular parts of a structure need repair while the main framework or the other parts can be left untouched. Complete dismantling is necessary if a structure is almost a ruin, so that various kinds of repair techniques are required.<sup>71</sup> Sheltering refers to the covering of a structure with a protective shelter, which is often undertaken for relatively small buildings, models, parts of buildings to be preserved and displayed in museums. Periodical reconstruction is an attempt to preserve a structure through a perfect copy of all parts, so that, despite the fact that all the original parts and materials are destroyed, the original design and proportions are always

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<sup>69</sup> *ibid.*, pp. 23-36; also see : John Scrivener & Peter Lovell, *The Renovation and Rehabilitation of Older Australian Dwellings : an Investigation of the Technical Problems*, Australian Housing Research Council Project No.68, Department of Architecture and Building, University of Melbourne, Melbourne, 1979.

<sup>70</sup> Weaver, *op.cit.*, pp. 46-56.

<sup>71</sup> Dismantling and reassembling process often needs new materials, so that while preserving the original form, the structure may gradually lose its original parts. The structure thus continues to exist at the cost of inevitable loss of its originality. See : Masaru Sekino, 'The Preservation and Restoration of Wooden Monuments in Japan', in UNESCO, 1972, *op.cit.*, pp. 207-230.

retained. This process is common in Japan where shrines are retained for religious tradition.<sup>72</sup>

Both partial and complete dismantling and reassembling involves repair in terms of both returning dislodged parts to their place and replacing decayed parts. This may require either partial or complete replacement of the damaged parts. The treatment includes mechanical reinforcement, and consolidation by impregnation. Mechanical reinforcement can be undertaken by using dowels or pegs of wood, metal, or glass fibre reinforced plastic, the inserting of clamps or wedges, splinting structural timber with new material, and filling missing areas with gap fillers. Consolidation is needed if parts of the older timber building have become powdery or friable due to insect or fungal attacks, thermal degradation, or burning. It can be undertaken by bonding together the remaining materials using the impregnation of a low viscosity, synthetic resin or molten wax.<sup>73</sup>

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<sup>72</sup> *ibid.*, p. 210.

<sup>73</sup> Weaver, *op.cit.*, pp.40-6.